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THE
HISTORY
OF THE
Belles Lettres,
AND OF
ARTS and SCIENCES,
FROM THEIR
ORIGIN, down to this present Time.
BEING AN
INTRODUCTION
TO THE
Study of the BELLES LETTRES.

Translated from the *French* of
M. JUVENAL DE CARLENCAS.

With a compleat Alphabetical INDEX.

L O N D O N,

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THE
AUTHOR'S
PREFACE.

 *HAT can be more entertaining, and at the same Time more engaging, than that History where we see all the painful Steps and Labours of the Mind of Man trac'd out in the Invention, Progression, and Perfection of the Arts and Sciences?*

A 3

Sciences? *There it is we observe the weak, low, and languid Estate the Mind is often reduced to, by its Speculations and Researches; the Darkneſs which ſometimes overſpreads it; and again the faint and glimmering Rays which break out athwart the Cloud; but which, if carefully collected, often diſſuſe a ſtrong Light over all the Soul.*

This Hiſtory of the Sciences comprehends all the Ages of the World, and all and every People who have known how to make a proper Uſe of their Reaſon. It makes us obſerve the Cauſes and Occaſions of good and bad Taſte; the almoſt infinite Variety and Differences of Geniuſes; how few of them agree in the juſt Idea of Things, of Goodneſs, Truth, &c. and what different Roads they take to attain and arrive at the ſame End.

But as many look upon that as uſeleſs, which they don't know; and becauſe the Hiſtory of the Sciences is, perhaps, leſs ſuited to the Humour and Capacity of ſome, than that of Nations and Empires, it may indeed, in their Opinion, paſs for an idle Amuſement. A fine Diſcourſe, they'll ſay, charms us; a well conducted Poem affects us; and we are ſenſibly touched by a fine Picture: But what does it ſignify to know that Demoſthenes excelled in Eloquence, Homer in Poefy, Apelles

I have not enlarged upon the Hints or Thoughts of others; it may, perhaps, be thought, I have straitened them too much. I have generally named my Authorities, without loading the Margin with too many Quotations. When a Thing is well said, I don't endeavour to say it better. I have endeavoured to avoid that foolish Affectation of some, who by a Variety of Expressions endeavour to surpass that Original which they propose to imitate.

Some may, perhaps, find Fault that I have omitted a great many Authors, who ought to have been taken Notice of in this Essay: But they will forgive me when they consider, that the principal Design is, to make some historical Reflections upon the Origin and Progress of the Sciences, and a few Examples have been sufficient to fix the Dates.

There's enough said, to put those upon the Way, who are inclined to consider and peruse the different Pieces we have of the History of Learning. I am only afraid of being blam'd for Mistakes I may have fallen into, and for bold Conjectures, which nevertheless I have only given as such. I confess I may very possibly have wandered in these new Roads I have trac'd out
to

xii *The* **AUTHOR'S PREFACE.**

*to my self; and therefore shall not be surpris'd to be set right by any one who has travelled and knows the Way better. It is to be hoped, some learned and able Writer will undertake a Subject, which is capable of being so much enlarged and embellish-
ed.*

Mihi sat erit specimen tanti monstrasse
laboris.



GRAM-



A

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GRAMMAR, LANGUAGES.



THE Knowledge of Languages opens the Entry to the Sciences. The Orientals, the Inventors of the Arts, satisfied themselves with speaking well their Mother-Tongue, without giving themselves the trouble to learn strange Languages. The ancient *Egyptians*, in their happy Ages, had no Ambition to push themselves abroad ; they found at home where-withall to satisfy all their Wants ; and being constant Observers of their Maxims, they carefully avoided the introducing among them the Language and Manners of their Neighbours, whom they look'd upon as *Barbarians* ; and indeed they were less polite than they.

I except their Neighbours the *Hebrews*, who with a noble Simplicity were very polite : but they were a People in a special manner separated from all others ; they abhorr'd the Customs of the *Gentiles*, and they despis'd their Studies,

B

where

where every thing favour'd of Idolatry. The Book which God had put in their hands, was to them instead of all other Books, and contain'd all that they ought and wanted to know.

The Hebrew Language.

The Language in which the Book is written, is perfectly conform to the Character of that People. It is simple in its Words, all derived from a few Roots, without any Composition; it is rich, solid, and clear in its Expressions, which give distinct Ideas, and form sensible Images: and, which seems to me very remarkable, this Language suffer'd no Change at all from *Moses* down to the time of the *Babylonish* Captivity (a): Then, that is, during the seventy Years that the Captivity lasted, the *Hebrew* ceas'd to be the common Language of the *Jews*, who substituted in its room the *Syriack* or *Chaldaick*. Since their Return from the Captivity, there have been none but the Learned, who understood *Hebrew*; besides, they abandon'd the use of the ancient *Hebrew* Letters (which the *Samaritans* kept) and took those of the *Chaldeans*, which we improperly call *Hebrew* Letters.

Syriack, or Chaldaick.

The Christians preserv'd the Body of the Scriptures intire, which they read in the vulgar Tongue, even in the publick Service: for the Lectures were all in *Greek* over all the East, and in *Latin* over all the West. The *Higher Syria* nevertheless, where they made use of the *Syriack* Language in their Offices, may be excepted; as may also the Country of *Thebes*, or *Thebais*, where they spoke nothing but *Egyptian* (b). In these primitive times, the Faithful separated themselves equally from the *Pagans* and the *Jews*; so that they took no care of

(a) Fleury Mœurs des Israel. Art. 15.

(b) Ibid. Mœurs des Chrêt. Art. 30.

of studying the *Hebrew*, which they left to the *Rabbi's*; yet the Providence of God raised up Doctors sometimes, who applied themselves to the Study of the holy Language, for the common Benefit of the Church.

About the beginning of the third Century, the laborious *Origen* undertook that immense Work of explaining the Holy Scripture, and making it more easily understood, by comparing the different Versions with the original Text; and, about the end of the fourth, St. *Jerome* made from the *Hebrew* that famous Translation, known at present by the Name of *The Vulgate Version*.

The Vulgar Version.

The Ruin of the *Roman* Empire, and the Devastations made by the Northern Nations, put a stop to the Progress which the *Hebrew* Language was like to make in the West. Ignorance took so deep Root from that time, that 'tis but about two hundred Years since the Study of that Language was reviv'd.

In *Germany*, the most learned of the Protestant Divines gave great Application to it during the sixteenth Century.

Forster was Professor of *Hebrew* at *Wittenberg*, *Pellican* at *Zurich*, *Nicander* at *Isfeld*, &c. But of all of them, he who acquired the greatest Reputation, was *Sebastian Munster*, whom they call'd the *German Esdras*, for his excellent Version of the Bible.

At the same time they studied the *Hebrew* in *France*, with the same Ardor and Success. King *Francis I.* that illustrious Restorer of the Sciences, establish'd Professors at *Paris* to teach the Languages, Anno 1529. *Vatable*, *Bertin*, *Genebrard*, and several others, distinguished themselves in that Profession, and made excellent Scholars. From the School of *Vatable*,

table came *Salignac, Cavalier, Mercier* : And *Raphelengius*, Disciple of *Mercier*, gave the *Flemish* a Taste and Inclination for the *Hebrew* Language ; in which *Andreas Mæsius*, that learned Critick, became a great Proficient.

As the Humor of the *Spaniards* naturally dispos'd them to a Study which requires great Assiduity and Patience ; so they made good Progress, and had several learned Masters of the *Hebrew* Language. I shall only make mention of *Arrias Montanus*, who, by Order of *Philip II.* made the famous Edition of the *Complutensian Bible*.

Point-
Vowels
first used.

Dead Languages are not easily learned but by Principles ; the *Rabbi's(c)* made a Grammar for the Holy Language, and taught it by Rules. About a thousand Years after the *Hebrew* was no more a living and common Language, certain Criticks of the School of *Tiberias*, call'd by us *Massoretes*, invented the Point-Vowels : These Grammarians, of but a mean Capacity, fancied to fix the Pronunciation of the *Hebrew* Text by these Points ; tho' probably they must at that time have been ignorant of the ancient and true Pronunciation. Upon the Revival of the *Belles Lettres*, the Learned adopted the Use of the Point-Vowels, which they found had been established a long time ; and strove who should best abridge and make easy a Study which does not want its Difficulties ; hence that Number of Grammars, which most of the Professors and Learned we have named composed ; which were very soon followed by the Grammars of *Buxtorf, Erpenius, and Keckerman*, much more exact than the former.

According to the Advances they made in this formerly unknown Region, they made
new

(c) Rabbi *Kimchi, Elias Levita, &c.*

new Discoveries. To speak only of the *French*, *Samuel Bochart*, about the middle of the last Century, surprized the learned World, by the curious Researches and profound Erudition found and admired in his *Phaleg and Canaan*; and long after him, *P. Thomassin* made his *Universal Glossary*, where he gives great Proof of his great Skill in the Oriental Languages; he makes them all derived from the *Hebrew*, as their common Source: hence that observable Affinity and Genius amongst them. The *Chaldaick* comes nearest to the *Hebrew*, and it is in this Language that the Paraphrases which the *Jews* print with their Bibles, and their Commentaries upon the Books of Scripture, are written.

The first Grammar of the *Chaldaick* Language is that of *Munster*. *Postellus* and *Erpenius* have given us Grammars of the *Arabick*; and *Raphelengius* an *Arabick* Dictionary.

One of the most famous Professors of the *Syriack* Language was Mr. *Herbelot*, Author of the *Bibliothèque Orientale*. He had written this Book in *Arabick*, but afterwards translated it into *French*, to make it the more useful.

The *Hebrew* is so difficult, that 'tis understood but by a few of the Learned. To encourage the Study of this Mother-Language, the Points should be cut off, which, like Briars and Thorns, serve only to choke up the way that leads to it. These Points or Accents are useless, now that the Question is, not to speak, but to read and understand it. And all the Difficulty lies here, *viz.* Whether this Language admits of Vowels? Or if the Points of the *Massoretes* were invented to supply the want of them?

The Points
no more
made use
of.

Monf. *Maslef*, Canon of *Amiens*, has undertaken the first Part of the Question, against the Points; and, since the Year 1717, is the Author of a new and very convenient Method. On the other hand, Father *Guarin*, a *Benedictin*, has declared for the Point-Vowels. But, notwithstanding his Zeal in their Defence, most part of the Students of *Hebrew* do now reject them as good for nothing, but to embarrass and retard the Study of the sacred Books.

I say nothing of the *Phœnician*, nor of the *Ethiopian* Language. They are not enough known.

Greek
Lang.

The History of the obscure and fabulous Ages tells us, that *Cadmus*, Son of *Agenor* King of *Phœnicia*, brought into *Greece* the Invention of Writing, about 260 Years before the taking of *Troy*. It is easy to believe, that that Prince would introduce the *Phœnician* Language into that Country, which mixing with that which the Natives, the Descendants of *Hellen* spoke, form'd at last the *Greek* Language. Its different Dialects arose very near the same way in process of time.

Dialects
Ionick and
Eolick.

Several Clans of the *Greeks* went in quest of new Habitations: The *Ionians* and *Eolians* pass'd over into *Asia*, and establish'd themselves in these two Countries, which from them have been since called *Ionia* and *Eolia* (d). The Language of their Posterity took easily a Tincture of that of the ancient *Asiatics*. Thence came the *Ionian* and *Eolian* Dialects.

Dorick.

The *Dorick* seems to be more ancient. It must certainly come from *Dorus*, the second Son of *Hellen*.

We should have a very false Notion of the *Greek* Dialects, if we took them for so many gross

(d) *Vell. Patere. Hist. lib. 1. c. 4.*

gross and corrupt Ways of speaking, like those used in our Provinces; every Dialect was a perfect Idiom, which had its particular Beauties. *Herodote* made use of the *Ionian*, *Thucydide* of the *Attick*: What a Purity of Style, and Elegance in these two Historians! We must acknowledge however, that the *Attick* Dialect excells the others very far: Why? Because by *Atticism* is meant a Discourse, which seems to be dictated by Nature itself; where there is nothing, but what's agreeable to taste, of an easy Grace, and so seasoned as to be felt; in a word, where every thing is well said (e)

This Purity and Politeness of Language, peculiar to *Athens*, was there so generally diffused, that *Theophraste*, who is justly commended for his Sweetness of Style, was known to be a Stranger by a simple Fruit-woman, by a *Je ne sçay quoi*, or something, one can't tell what, amiss in his way of speaking.

(f) The *Greek* Language did not continue always confin'd to *Greece*. *Carneades*, *Critolaus*, and *Diogenes*, being sent from *Athens* to *Rome* upon publick Affairs, inspired the *Roman* Youth with a great Desire of learning the *Greek*. The most illustrious *Romans* began to retain and keep about them the most learned Men of *Greece*. *Scipio*, *Lælius*, and *Furius* set them the Example (g). And the Passion they had for that new Learning became so strong, that *Cato* the elder was afraid, lest the Youth should give up the Glory of Arms and Doing well, for the Honour of Knowing and Speaking well (h).

B 4

From

(e) Ut bene dicere, id sit Attice dicere.

Cic. de opt. gen. Orat. n. 13.

(f) *Cicero* de claris Oratoribus.

(g) *Cicero* de Oratore, lib. 2. n. 155.

1

(h) *Plutarch. Life of Cato.*

From the first *Africanus* to *Cicero*, that is, almost fourscore Years, the *Romans* gave great Application to the Study of the *Greek Language*. Thus *Greece*, when in Subjection to the *Romans*, in its turn subjected its Conquerors (i). It became the School of the fine Arts, and preserv'd its Reputation a long time under the Emperors.

Nevertheless, the *Greek Language* degenerated insensibly; they who taught it, and who were called *Grammarians*, left very often the more solid, to run after the frivolous; and being busied about hard Questions, they cultivated and minded nothing at length but an obscure sort of Erudition. Bad Taste is contagious; it infected the *Romans* also. We must not wonder then, if under the Empire of *Adrian*, People could hear a *Ptolomeus Chennus*, and if they could have in esteem a *Leander Nicanor*, a *Diogenian*, and a *Jason*: The most polite Princes then treated these *Grammarians* favourably; they were so equitable, as not to charge the Art they profess'd with their Defects; besides, the Study of the *Greek Language* was at that time the Foundation of all other Studies, even for Princes; *Telephus* and *Hephestion* taught the Emperor *Lucius Verus* *Greek*.

There was a good deal to be learn'd from the Writings of some of them: Without the *Banquet of Athenæus*, one could not go far into the *Greek Antiquities* (l). Grammar grew worse as the *Greek Empire* declined, and lost of its Lustre. Nevertheless the *Grammarians*, whose chief Business was the Explanation of good Authors,

(i) *Horat. Ep. 1. lib. 2. Græcia capta ferum victorem coëpit, &c.*

(k) *Capitolinus, vit. L. Veri.*

(l) He liv'd in the time of the Emperor *Commodus*.

L A N G U A G E S.

Authors preserved the *Belles Lettres* : The Scholiasts fixed the Tradition of the ancient Usages and Customs; they illustrated the Texts, whether it be by the different Readings, or by the Citations of many Authors which are lost since. We may refer to these latter Times the Invention of the Accents, so useful for understanding well the *Greek Writers* : Whoever would refer them to the higher Ages, might be easily refuted, both from the Inscriptions and ancient Manuscripts.

We are now insensibly arrived at the Recovery of the *Greek Language* in the West, where it had been altogether unknown for many Ages. About the End of the 14th Century, *Emanuel Chrysolore*, who had been sent by *Joannes Paleologus* to desire the Assistance of the Princes of *Europe* against *Bajazet*, who was then besieging *Constantinople*, fix'd his Habitation in *Italy* after the Death of his Master, and professed the *Greek Language* first at *Venice*, next at *Florence*, and last at *Pavia*, under the Protection of Duke *John Gallas* (m). From his School came *Franciscus Philelphus* a Spaniard, *Ambrose* a Monk of *Colchester* in *England*, *Francis Barbara*, &c. Afterwards, when *Mahomet* the 2d took *Constantinople*, all the *Greeks* who lov'd the fine Arts took Refuge in *Italy*, and were receiv'd there with Marks of Distinction by the famous *Laurence of Medicis*.

Lascharis, after he had put in Order the fine Library of *Florence*, came to *France*; and at *Fountainbleau* laid the Foundations of the King's Library; and at *Paris* that of the Royal College. *Budeus*, his illustrious Disciple, who had contributed to those two Establishments,

(m) Thevot, Vies des hommes illustres. lib. 2. ch. 45.

tablifhments, communicated to *Francis I.* the Taste of the *Greek Learning*.

It is not to be imagin'd, with what Rapidity and Succels this new Study ran over the Kingdom. It was very ſoon honoured, and Perſons of the greateſt Quality took Delight in it; *Henry de Meſmes* (n), not only underſtood the *Greek*, but could repeat all *Homer* (o). They had not as yet abandon'd and given up to Pedants a Language, which alone was capable to inſpire true Politenefs; that unjuſt Prejudice, as I believe, was owing to the Abufe that ſome who were concern'd in Teaching made of their Profeſſion, ſpoil'd, it may be, by the bad Example of the Grammarians we have ſpoke of, and by the Solitude of their Cloſets, which ſeparating them from the Converſation of the World, gave them a certain Ruſticity, which render'd them contemptible. Nevertheleſs, tho' incapable of perceiving the Beauties that were too fine for them, they have labour'd uſefully for thoſe that came after them, and fav'd them the Trouble of tedious Reſearches: Some of them have given excellent Editions of good Authors, and publiſhed Works before unknown. Of the Number of theſe, in the 16th Century, are, *Johannes Fambucus*, the firſt Editor of *Ariſtenetas*, *Eunapius*, *Hefychius*, &c. and *Arnold of Lens*, who, according to *Monſieur de Thou* (p), recovered from Duſt and Deſtruction, *Joſephus* againſt *Appion*. Others of 'em have illuſtrated the Writings of the Ancients with Notes, and given faithful enough Tranſlations of them in *Latin*. In ſhort,

(n) He liv'd about the Middle of the 16th Century.

(o) Rollin Maniere d'enſeigner les Belles Lettres, Tom. 1. l. 1. ch. 10.

(p) Thou. Hiſt. ſui temporis, an. 1561.

short, some of them have composed Grammars with great Exactness. Such are, *Clenard*, *Gretzer*, *Vossius*, *Weller*, &c.

Let us do Justice to our own Nation and the Age we live in. Those of our Learned, who have applied themselves to the *Greek* Grammar, have added to that Study both more Criticism and more Taste; without confining themselves to the Letter, they have penetrated into the Spirit of their Authors: They have laid hold upon, and taken Notice of, both what is beautiful and solid in them; their strong or sublime Thoughts; their natural or delicate Turns; nothing has escap'd them.

They have likewise extended their Labours on the *Greek* of the middle and last Age; and have not neglected, but by Work as painful as useful have examin'd, that rude, uncouth *Latin*, which Barbarity substituted in place of the Language of the ancient *Romans* (r). Let us stop here, and consider this Language in all its Purity.

The *Latin*, as all other Languages, rude *Latin* and harsh in the Beginning, was a forming slowly for several Ages, and did not arrive at Perfection till the Time of *Scipio* and *Lælius*.

Terence, charm'd with the frequent Perusal of *Menander*, was the first who dar'd to introduce the Graces of the *Greek* into the *Roman* Language. *Cicero* gave it more Harmony and Numbers; and the Poets who flourish'd under *Augustus* put the last Hand to it, by enriching it with the Spoils of *Pindar* and *Homer*. This is the proper Interval, to which we

(r) M. du Cange dans ses deux glossaires.

GRAMMAR,

we ought to confine the *Roman* Urbanity, that Flower of Expression and Politeness, as peculiar to the Town of *Rome*, as the *Atticism* was to *Athens*, which distinguish'd the Citizen from the Stranger; in which *Cicero* excell'd, but *Titus Livius* wanted, who was found Fault with for a certain provincial Air (s) and Turn in his Style.

From the Reign of *Tiberius* the *Latin* Language began to be corrupted: It lost that natural and simple Air, in which lay its Beauty, to take up with something, I don't know what, affected and childish: They would needs have Wit, and too much; and because Taste was fallen low, they thought they did a great deal when they ornamented their Diction and Discourse with Figures, and stuff'd it full with trifling Punctilio's. 'Twas the young Folks who gave the Run to and encouraged that Sort of Mode; but the most sufficient and best Judges esteem'd still the Language of the Ancients, and the Grammarians set themselves to work to explain them.

In the Time of *Claudius*, *Asconius Pedianus* render'd himself famous by his Commentaries upon *Cicero*. *Sulpicius Apollinaris*, whom they place under *Antoninus Pius*, illustrated *Terence* (t). *Evantius* labour'd upon the same Poet (u). *Donatus* and *Servius* illustrated *Virgil* by their learned Notes (x). Others, that they might profit by their reading, contented themselves by making Excerptions from good Authors,

(s) Quintil. Inst. orat. lib. 8. c. 1.

(t) Calvis. Chron. an. 163.

(u) Baillet Gram. c. 622.

(x) They put the first under *Constantius*, and the second under *Honorius*.

Authors, and publishing their Collections ; such as are the *Noctes Atticæ* of *Aulus Gellius*, and the *Saturnalia* of *Macrobius*. There were some of them, who keeping more strictly within the Bounds of their Profession, wrote upon the different Parts of Grammar.

Censorinus, the most learned Man of his Age, wrote a Book concerning the Accents, which *Priscian* cites. *Verrius Flaccus* had before written a Treatise of the Signification of Words; and in the much later Times *Nonius Marcellus* wrote one concerning their Propriety. *Festus*, Contemporary of the last, after having abridged *Flaccus*, has been abridged himself by *Paulus Diaconus*. Thus, the Merit of these Writers consisted only, very often, in copying one another ; which has so confounded them, that the Name of the Author of *Instructions upon Grammar*, is at present a Problem for the Learned ; some of them attribute these Five Books to *Charisius*, others to *Dionysius*.

When the *Latin* ceas'd to be a vulgar Language, they set about different Ways of teaching it, especially in the last two Centuries ; some taught it by Use and Exercise : That is the Way *Montagne* was taught it (y), and which hath been renew'd in our own Time with Success, in Sight of all *Paris*.

It was believ'd for a long Time, that there was no Way better than to employ all the *Latin* Words in one continued Discourse. It was upon this Plan that *Comenius* made his *Janua Linguarum*, a Book, which, after it had been the Darling of all *Europe*, could not preserve its Reputation. Others, by introducing the Fables, fancy'd to abridge a Study, which
by

by that Means they made more difficult : At length the greatest Numbers declar'd for the Grammars call'd, *The Methods*, where the Precepts were first given in *Latin*, and afterwards in *French*.

The principal Design of studying the dead Languages, is, to understand the Authors who have written in them. But the more ancient the Authors are, they are the harder to be understood : You must acquaint yourself with the Genius of your Author, adjust his Principles and Conclusions ; you must consider him with Regard to the Circumstances of the Time and Place he liv'd in ; and give Attention to the Manners and Customs which prevail'd, and were in Use then, and remark his Allusions, founded upon certain Facts not commonly known. With this View the Grammarians of the 16th Century apply'd themselves to illustrate the *Latin* Authors ; some of them by long Commentaries, others by short Notes. In *Italy*, *Corrado*, *Curiot*, *Aldus Manutius*, *Ursinus* and *Ricoboni* distinguish'd themselves in this Kind of Learning ; as did the *Germans* also, as *Amberbachius*, *Betuleus*, *Rhenanus*, *Ghelenus*, *Glareanus* and *Fabricius*. The *French* were not the last in applying to that Study ; and we may venture to say, without being call'd too partial, that *Turnebus*, *Lambinus*, *Josephus Scaliger* and *Muretus*, went a greater Length than the Foreigners.

The Antiquaries, whose Task was greater, made a separate Class ; and they in a manner divided the Labour among them. *Nicolas de Grouchi* treated of the *Roman Comitia* or Assemblies, as did *Carolus Sigonius* ; and made a personal Quarrel of a Point of Learning.

Peter Ciacon wrote of the Weights and Measures, and explain'd and described the *Triclinium* of the Ancients. *Hubertus Goltzius*, *Antonius Augustinus*, and *Fulvius Ursinus*, wrote of and illustrated the Medals; others took the Inscriptions for their Part of the Task, and others the Mythology.

The Ignorance of the preceding Ages render'd these Studies necessary: But some of them overdid in these Matters. They confin'd and strain'd to express themselves in the purest *Latin* they could, and to read all the Authors, to show that they had read a great deal; and they consum'd the Time about Words, which they ought to have bestow'd upon the Research of Things. The Learned of this Kind, far from forming their Taste from so perfect Models, knew all that was in the Ancients but their Graces and Delicacy.

Nevertheless, 'twould be unjust, not to be thankful, and acknowledge the Obligation they have laid us under, for the great Trouble and Labour they have sav'd us: And we can never be too thankful for their Diligence, and the great Pains they were at to search for and discover the best and most ancient Manuscripts; and for their collating and comparing them together; and for their giving us excellent Editions. Would you have an Instance? Look only to *Faerne's Terence*. The Successors of those Grammarians inherited both their good and bad Qualities, and even to the Middle of the last Century. *Salmasius*, with vast Erudition, had a great deal of Vanity and low Jealousy.

The nigher we approach to our own Times, we see the Learned outdo their Masters, and make new Discoveries. I don't speak of the Editions

Editions for the Use of the Dauphin; they have not carry'd all the Votes in their Favours: I speak of those fine Editions publish'd a few Years since in *France* and other Countries; which, while they preserve both the *Variorum* and *Notes* of the first Commentators, cut off all that is superficial and loaded with a vain and haughty Erudition: I speak of *Pbædrus*, whom Mr. *Pithon* has revived; and (which is more important) of so many Works, not known before, of the Fathers of the Church, which *Jerome Vignier* and *Francis de Combfix* have published for the first Time.

The good Taste of our Age has not allowed us to neglect the *French* Language, while we cultivated the *Latin*. As it concerns us very much to know it, let us go back to its Source, and follow it in its Course and Progress.

The
French.

Tudesque.

The *Francks*, when they establish'd themselves in *Gaul*, left to the Natives of the Country their particular Usages and Customs: And, during the first Race of our Kings, there were two People in *France*, who spoke two different Languages, the *Latin* and the *Tudesque*. Mean time these two People approach'd one another by little and little. Whether thro' Necessity or Complaisance, the *Romans* or old *Gauls* accommodated themselves to the Manners of the *French*, whom they found no longer to be so barbarous; and leaving their own, took partly to the Manners of their Masters; they, on the other Hand, admired the Politeness of their new Subjects, and were much taken with their Manner of Living; at length, each of them adding something of their own, they became one People and one Language, but a Language compos'd of two which were abolished;

abolished; the *Latin* as to the Words, and the *Tudesque* with regard to the Construction of Speech.

But it must be observ'd, that as the Genius of this Language retain'd more of the *Roman* than of the *German*, it was very soon subjected to Articles and auxiliary Verbs: Its Terms, which were corrupted as they departed from their Original, took a new Termination, and were confounded with many Terms of the Northern People, who at different times had made Incursions into *Gaul*.

This Language called *Roman*, after having banished the *Tudesque*, which our first Kings spoke, was fully form'd under the Reign of *Lewis* the young. *Fauchet* proves it (z). This Author, who is so learn'd in our Antiquities, says, that from that time they began to write; for a Language is made, when it gets beyond the Limits of familiar Discourse, and is become capable of Style. A fine Genius (a) believed with Probability enough, that in the Voyages beyond Sea, which both preceded and followed that Epoch, the *French* chose to imitate in some things the Oeconomy of the *Greek* Language.

The Poets, who afterwards crouded the Courts of Princes under the Appellation of *Jongleurs*, gave a new Turn to our Language; and to which *Jean de Meun* (b), and after him *Alain Chartier* (c), added new Graces. *Amiot*, *Marot*, and their Cotemporaries, enrich'd it with some foreign Phrases, to which our Affairs beyond the Mountains gave occasion. The Civil Wars, with which *France* was afflicted,

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stopt

(z) De la Langue Françoise.

(a) Le Pere Bohours, Entr. sur la Langue Françoise.

(b) Continuateur du Roman de la Rose.

(c) Secretaire de Charles VII. .

stopt a little the Progress of our Writers, and our Language continued very imperfect under these four Reigns : The Glory of polishing and bringing it to Perfection was reserved for *Malherbe* and *Balzac* : They brought a Cadence and Harmony into it, which no body had any Notion of before. To say all in a word, they made it capable of expressing all the Beauties of Poesy and Eloquence.

Every living Language is subject to change ; it goes on to Perfection, or degenerates ; it follows always the good or bad Taste of the Nation. 'Twas to purify the Taste more and more, and to bring the Language to the Point of Perfection it is capable of, that Cardinal *de Richelieu* founded the *French Academy*, which, under the Protection of our Kings, has carried the *Belles Lettres* to that Degree of Elevation we now see them in. That illustrious Company propos'd at first, to shew and declare what was good and proper *French*, and to fix the fundamental Rules of our Language ; which was to promise a Dictionary and Grammar.

The Academy perform'd its first Promise, *Anno* 1694, and having carefully revis'd its Work, it publish'd a new Edition of its Dictionary, or rather a Dictionary altogether new. That the Dictionary might be not only of use, but to the good liking of every one, the Academy had regard to the different Tastes, and followed two different Methods in compiling of it. The first, which disposes of the Words from their Roots, agrees best with the Learned ; the other, which ranges according to the Order of the Alphabet, all Words, whether simple or compounded, is better suited to the Capacity of ordinary Readers.

The

The whole Academy join'd in this double Work; and every Member did something towards its Perfection. In the mean time, it did not neglect thinking of its Grammar: To prepare for it, it had made Observations upon the Remarks of *Vaugelas*. "But that Company (says a famous Academician (*d*), in his Examination of the Doubts upon the Language) "were immediately of opinion, that the Work "of a System, as a Grammar is, could not be "conducted but by one Person; therefore they "gave the Care of it to Abbé *Regnier*, who "bestow'd upon it all the Knowledge he had "acquired by fifty Years Reading and Reflexions."

It was not, that our Language wanted Grammars altogether; but all of 'em, which had been published, were very faulty. The Grammar of Pere *Chifflet* a Jesuit, which was one of the best, and exact as to the Rules, had not a *French* Air, and favour'd of the *Franche Comté*. The anonymous one, which is conceal'd under the Name of Mr. *de la Touche*, deserves no Credit, in all the Rules it gives of the Pronunciation. 'Tis a greater Work, than a good Grammar, and more difficult than one would think. The Academy perhaps might even find something to correct in that of Abbé *Regnier*.

Let us not forget the Etymological Dictionary of Monsr. *Menage*. Every body knows of how great Use such Enquiries are for understanding the Force of Words and Orthography, and they even afford some Pleasure; and it were to be wish'd, that there were Dictionaries of this sort compiled for the different Idioms of our Provinces. They are very ancient, and if they were well explain'd, they would help a

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good

(*d*) M. Abbé Olivet, Hist. de l' Acad. Franc t. 2. p. 63.

good deal to clear up the Meaning of the proper Names of a vast Number of Places: One of the Learned of this Age (*e*) cites the *Biscayan* Language on this Subject, and shews its Conformity not only with the Language of a Part of *France*, but also with the *Spanish* and *Irish*.

Precepts are of little Use, if they are not supported by Examples; the Academy gives Rules and Examples in every kind of Writing. *La Fontain* and *Benferade* are good Guides for the simple Style, *Bossuet* and *Patru* for the high Style, *D'Ablancourt* for the middle, *Mess. De Buffi*, and *Rochevoucault* have a certain Air of Quality in saying things, which is not at all to be acquir'd by Study.

This Way of Writing easily, naturally, and as it were negligently, is, in my Opinion, a considerable Part of the *French* Urbanity. It appears principally among the Ladies of the Court, who have a fine Turn, by means of the most polite Education and Conversation. And if I am allow'd to tell my Thoughts, 'tis in this happy Talent that the Perfection of the Language consists.

This esteemable Quality is not to be found in other Languages. The *Italian* has something in it that's merry, jocular, and toying; the *Spanish* goes too much upon the other extreme; Pomp, Ostentation, and Bombast make its Character. Both the one and t'other have degenerated from their former Purity. If you would see these two Languages in their Beauty, you must see and consider them in their Infancy. *Guevarre*, *Marianna*, and *Lewis de Grenade*, have a Purity of Style in vain to be look'd

(*e*) M. Leibnitz dans sa Lettre à Mons. Chamberlain, 28 Avril 1714.

Our Men of Quality learn the *German* Language, more for the Conveniency of Travelling than Reading: On the contrary, the Learned study the *English* Language upon the account of the excellent Books which for some time have been written in it. The other Languages are neglected, as truly they deserve to be.

But now that the *Turks* begin to forsake their old Barbarity, and to cultivate Learning, their Language becomes less indifferent to us ; and it is more than a Century since we have studied it, and we must confess we don't want helps. *Guilielmus Megiserus*, Historiographer to the Elector of *Saxony*, published a *Turkish* Grammar *Anno* 1612, which is the first that appear'd. It was follow'd by that which *Andre du Ryer*, *Sieur de Melezair*, caus'd to be printed at *Paris* by *Vitré*, *Anno* 1631. Ten or twelve Years after, *Jean Molino* and *Francis-Marie Maggio*, Clerk Regular of *Palermo*, publish'd, the one his *Ru-*

diments,

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diments, *Anno* 1640, the other, his *Institutions*, *Anno* 1643. Afterwards there appeared something more perfect of this kind, *viz.* The *Turkish Grammar* of *William Seaman*, printed at *Oxford*, *Anno* 1670, and that of *Meninski*, published at *Vienna*, 1680. All these Grammars are in *Latin*, except that of *Molino's* in *Italian*. At present we have one written in *French* by *Father Holderman* a Jesuit, and, which is remarkable, printed at *Constantinople* (g).

Chinese.

The *Chinese* Language deserves to be taken notice of in a particular manner, not only because 'tis the Language of a very polite People, but also because it has Singularities which distinguish it from all other Languages. The *Chinese* Characters don't form their Combinations neither of Syllables nor Words; they only point the Objects they design or mean. They reckon of them to the Number of fourscore thousand, comprehending the four hundred radical Characters, from which all the rest are derived. Indeed, it is not absolutely necessary to know all these Characters; seven thousand may be sufficient for any one, who will confine himself to Books of common Use: but if one would know and read the Books of the Sciences, he must know 15000 Characters. They are ranged by Columns from head to foot, disposed and ordered from right to left. Besides, for the understanding of this Language, there are more Lexicons than Grammars; for besides the Lexicons composed by the *Chinese*, we have those of *Francis Dias*, of *Christianus Hertric*, and of the Fathers *Calancus*, *Trigaultius*, and *Semedo*, Jesuites (h). But all these Dictionaries will soon be eclipsed, when the universal Dictionary

(g) *Journal des Sçavans*, Mai, 1732.

(h) *Bayer. Musæum Sinicum*.

tionary of Messrs. *Freret* and *Fourmont* appears; and the *Chinese* Grammar of these two learned Academicians will supply what is wanting as to Grammar.

P O E S Y.

POETRY, according to the Opinion of a very judicious Author (*i*), is as ancient as the World. It was born together with Speech, if I may so speak, and has its Source in Nature itself. Man newly come from the Hands of God, admires and is astonished at the Sight of the World, which declares the Goodness and Magnificence of him who made it (*k*). The Sight of so many Wonders raises him to the Contemplation of the supreme Being, wholly occupy'd and intent upon the only Object worthy to be lov'd. He proclaims the Greatness of God, so perfect, so powerful, and so wise; he borrows the Assistance of Voice, which at first can make but inarticulate Sounds; to which he afterwards adjoins distinct Ideas of the Sentiments which he feels piercing his Soul.

A common and vulgar Language would but ill correspond to the secret Expansion of the Heart. Something great and sublime is yet wanting. He reviews and considers Nature all over, and from the various Riches she incloses, he forms to himself the most lively Images, and strongest Expressions. He ob-

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serves,

(*i*) M. Rollin, *Maniere d'enseigner les Belles Lettres*, Tom. 1. p. 79. d' edition 1726.

(*k*) Psal. 18. v. 1.

serves, that amongst the different Sounds which Words render, some are sweet and charming, some more harsh; and he seeks to imprint upon the Terms he uses, a certain Number and Cadence.

Such is the Nature of ancient Poesy; its only Task was to publish the Praises of God. Such is its Origin, and such was the Use the *Hebrews* made of it. But the Nations which God left to follow their own Ways, very soon transferr'd to the Creature, the Tribute which was due to the Creator only; thus Poesy, degenerating from its first Purity, was employ'd to celebrate the false Divinities of Paganism; and changing by degrees, it descended to the Sons of God, to Founders of Empires, Conquerors, and to all those who acquir'd to themselves a great Name. At length, thro' a deplorable Blindness, it was debas'd and made use of to praise the most shameful Vices, and to make the most infamous Passions appear amiable: sad Consequences of the Depravation of Mankind, which deify'd its Passions and Vices.

This is the Abuse which the *Greeks*, and the *Romans* after them, made of an Art so noble and so sacred in its Origin. Yet they preserved a clear and distinct Notion of the true Character of Poesy; they required of their Poets a Fertility of Invention, a Nobleness of Sentiment, and a Greatness of Expression; and above all, an Enthusiasm, which came next to divine Inspiration. 'Tis seldom so many Qualifications meet in the same Subject; Art can by no means give an Elevation of Genius, strong Sense and Vivacity, or a quick Imagination; hence that generally received Maxim, That we must bring with us, at our Birth,
thes_e

these good Gifts from Heaven.—Hence, the small Number that excel in Poesy.

What appears most surprising to me, is, that infinite Difference which is to be observed from Age to Age amongst the most polite People.

One would think a great Number of good *Greek* Poets should have sprung from the Ashes of *Poesy*. *Homer*; yet the *Greek* Poesy is confined to that small Space of Time between the Battle of *Marathon* and the confederate War.

One only Age gave the utmost Splendor *Latin*. and Perfection to the *Latin* Poesy, under the Reign of *Augustus*.

Since the Revival of the *Belles Lettres*, the *Italian*. great Poets have been all Cotemporaries of *Tasso* in *Italy*. — They have appeared all in *French*. *France* in the Age of *Corneille*. Amongst whole Nations, there is no Vestige to be seen of true Poetry. In *Spain*, nothing but Bombast and *Spanish*. false Sublime. In *England*, their Poetry with *English*. a pompous and harmonious Dress gives no Image, offers nothing to the Mind but Trifles, or a simple, poor Play upon Words (*l*). But whence comes this great Difference? Let us not enquire after the Cause, we should stray from our Subject: Besides, what can be added to the solid Reflexions of that able Critick, who seems to have exhausted this Matter (*m*)?

If there has been Countries and certain Ages, in which Poesy has been known to flourish, and other Countries and Ages which produced no Poets at all; Poesy has also appeared under different Forms, at Times very distant, ac-

(*l*) *Spectator* 1711, April 14th. *The Author seems to have been but little acquainted with the English Performances, in all Kind of Poetry, otherwise he would have done the English more Justice all along; and would not have pass'd a general Sentence against them, from a particular Remark of their Countryman.*

(*m*) *M. l'Abbé du Bos, Reflexions sur la poesie. &c. part 2. sect. 14.*

according to the different Character and Turn the Languages have taken.

Among the *Greeks* and *Romans* it march'd in Cadence, by the Help of a certain Measure of Syllables: These Syllables, diversly combin'd, form a great Variety of Verse; and these Verses, assembled in a different Way, form different Kinds of Poems. From this it is plain, that the Ancients made the Beauty of their Versification to consist in that delicate and sonorous Variety of the Feet, or measured Syllables.

The Barbarians, who invaded the *Roman* Empire, could not give to their Poesy, a Beauty, of which their Languages were not susceptible. Despairing therefore to make use of them according to the Rules of Metre, they fancy'd, there would be some Beauty in making their Verses; that is, two Parts of the Discourse, equal, and following, to end with the same Sound (*n*). This is the Origine of the Rhime, which all those People who succeeded to the *Roman* Power, have adopted. Scarce had they got into this Taste, when they began to introduce Rhime into *Latin* Poesy: But so insipid a Versification in *Latin* did not last, nor could be preserv'd, but in some Hymns of the Offices of the Church, which their Antiquity and Destination have made respected. In this matter, that which makes a Beauty in one Language, is oft times insupportable in another. The Attempt which was made in our own Time, to subject our Poesy to the Measure of the Ancients, had as ill Success, as the Invention of the *Leonine* Verses in the Days of our Fathers.

Lyrick
Poesy.

Poesy had its Birth amongst the People of God. Guided by the Holy Spirit, it was perfect

(*n*) M. Rollin loc. cit.

fect in its Origin : And it was inseparable from Musick, because it was to serve for the Instruction of Posterity ; and because Words put in a Song are better remember'd.

We have nothing in this kind more ancient than the Oracles of *Jacob*, with regard to the Fate of his Children (o). Their Style is figurative and metaphorical ; the Thoughts strong and sublime. The two Songs of *Moses* are of the same Character. In the First, that great Man sets before the Eyes of the Children of *Israel* their triumphant Passage thro' the Red Sea, the *Egyptians* bury'd in the Waves, the Inhabitants of *Canaan* seiz'd with a Panick, and plung'd in Sorrow (p). What a noble and lively Picture ! But when *Moses* is about to leave this rebellious People, he raises his Voice, calls upon Heaven and Earth to give Attention to his Words ; he makes them asham'd and confounded at their Ingratitude, by recounting the Goodness and Wonders of God in their favour : And he foretels the Calamities that must distress them, if they forsake the Lord, and give in to the Worship of strange Gods (q).

The pious Custom of declaring the Works of the Almighty, continu'd among the *Israelites*. *Debora* sung upon Instruments the Defeat of their Enemies (r). The Mother of *Samuel* thank'd God for his Grace, in giving her a Son (r) ; and *Ezechias*, when cur'd in a miraculous manner, breaks out into Thanksgiving (t) : For the *Hebrews* were very careful

(o) Genes. ch. 49. v. 3, & seq.

(p) Exod. chap. 15.

(q) Deut. chap. 32.

(r) Jud. chap. 5.

(s) Kings, lib. 1. cap. 2.

(t) Isai. cap. 8. v. 10. &c.

careful to compose Songs upon whatever hap-
pen'd to them that was considerable. We see
it clearly in the Psalms of *David*, which may
be call'd the allegorical History of that Prince,
and (which is their principal Object) the Histo-
ry of the Messiah.

The
Greeks.

Let us by no means doubt, that Poesy
flourish'd in *Greece* before *Homer* : And it was
the Lyrick, that is, Hymns and Odes, which
were employ'd in the Praise of the Deity (*u*).
The more ancient the *Grecian* Poets were, the
more their Poesy resembled that of the *He-
brews*. This is all that can be said of these first
Poets : For tho' the Names of *Linus*, *Orpheus*
and *Amphion* are famous, their History is
wrap'd up in Fable. If we would rest up-
on any thing certain, we must come lower
down, and stop at the nine famous Lyrick Po-
ets of *Greece*.

Stesichorus, whom Father *Petavius* places
in the Year of the World 3372, about the
38th Olympiad, seems to me to be the most
ancient : He sung upon his Harp the fa-
mous Wars and great Captains ; but he
disgrac'd Poesy, by defaming *Helen* in his
Verses (*x*).

Sappho, who liv'd at the same time, had
a great deal of Sweetness and Delicacy in her
Odes. We owe to her the Invention of that
smooth running Verse, so proper for Sub-
jects that require to be sung in a soft agreeable
Way.

Alcæus, full of Force and Majesty, took to
a higher Tone : He attacked the Tyrants.
Tho' he was very capable of great Things,
he

(*u*) Plato de Leg. 7.

(*x*) Horat. Epod. 17.

he amus'd himself sometimes with trifling Matters, which he ought to have neglected.

Simonides, who is very touching and pathetick, excell'd in sad and mournful Descriptions.

Pindar surpass'd all the Lyrick Poets in the Greatness of the Design, in the Variety of Thoughts, in the Boldness of the Figures, and in the happy Turn of Expression: Free from the ordinary Ties and Rules of Speech, he moves and astonishes with his Cadences and Numbers, which augment its Force. Sometimes he rises with a continu'd Flight upwards; you lose Sight of him: Sometimes he makes Starts and Sallies, and proceeds with that impetuous Rapidity, till he's lost in the immense Depth of his own Idea's (y). We have nothing of *Pindar*, but the four Books which the Ancients call'd *The Books of the Period*. He celebrates in these Books, the Victories obtain'd at the several Games of *Greece*. The rest of his Works are all lost, except a few Fragments, which are scatter'd among the Authors: But that which has escap'd the Injury of Time, is sufficient to make known and immortalize the Merit of this great Poet.

Anacreon, in his Odes, describes Love, Pleasure, and Play, in an easy, sweet, and tender Style: Or, to speak out the Truth, he exhibits the Bent and Motions of his own Heart in a manner a little too passionate.

Bacchilides, *Alcmand*, and *Ibicus*, are but little known; and, perhaps, deserve as little to be known.

A long time after, under the Reign of *Ptolemy Philadelphus*, the Poet *Callimachus* appear'd;

(y) Lib. 4. Od. 2.

pear'd : He wrote a great deal, tho' we have nothing left of his, but some Songs.

The Ro-
mans.

It was long before the *Romans* apply'd themselves to Lyrick Poetry. *Horace*, who was the first who discover'd, and made its Beauties known to them, had none to imitate among the *Latins* : He took his Models from among the *Greeks* ; and making choice of *Anacreon* and *Pindar*, he blended the Strength of the one with the Sweetness of the other ; and so became a Poet of a Stamp and Character quite new. He rais'd himself with Dignity, without losing any thing of the Graces ; and being happily bold in the Variety of his Figures, he charm'd the Ear with the Sweetness of his Sounds, and satiated the Imagination by the Vivacity of his Images. *Horace* left none to succeed him in the Lyrick Poetry. In the time of *Nero*, *Cæsius Bassus* made some vain Attempts to re-establish it : Wit was then prostrate, creeping and subjugated as it were by Tyranny and Oppression : But the Lyrick Poem would have somewhat in it of the Great, Marvellous and Sublime.

When the Love of Learning, which may be call'd the reigning Passion of the 16th Century, had intirely banish'd the Ignorance of former Ages, *Latin* was the common Language of the Learned over all *Europe*. 'Twas in this Language they study'd and cultivated Poesy. They were, without doubt, perswaded, that to imitate the Ancients aright, it behov'd them to borrow their very Words ; without considering, that that slavish Attachment to *Latin* extinguish'd in them that Fire and Enthusiasm necessary to make a Poet. 'Tis this, which a good Critick (a) finds fault with, and

(a) Rapin Reflex. sur la Poetiq.

and with very good Reason, in *Vida*, who, in the Opinion of *Scaliger* (*b*), wants Elevation in his Hymns.

Georgius Fabricius, tho' distinguish'd by the Laurel, according to Custom, by the Emperor *Maximilian II.* is commendable only for the Use he made of Poetry; for he employ'd the Talent, he had that way, only in holy Things.

Horrentinus, a *Fleming*, was much esteem'd in his own Country, and formerly pass'd for the Chief of the Modern Lyrick Poets.

Buchanan has Odes worthy of Antiquity. They would be perfect, if the Diversity of his Style, which wants the necessary Uniformity, did not occasion great Inequalities (*c*). One of our Poets (*d*), they say, prefer'd *Buchanan's* Paraphrase of the Psalms to the Archbishoprick of *Paris*: 'Tis a strong Expression, but it shews what Account was made of that Work.

In *France*, *Salomon Macrinus* (*e*) reviv'd the Taste for Lyrick Poetry: *Muretus* and *Dora-*
tus cultivated it, and *M. Santueil* brought it to as great Perfection as a Poem can be, which is written in a Language not the Mother-Tongue of the Author. Some of *Santueil's* Hymns have been adopted by several Churches, even when he was alive; a Circumstance as honourable to the Author, as it is rare and singular.

Ronsard was the first who dar'd to think our Language capable of the Lyrick Poesy, which he drew from its Fountains: but by his too great Liberty of larding with *Greek* and *Latin*,
 he

(*b*) Rapin, Poetiq. lib. 6.

(*e*) Rapin loco citat.

(*d*) Nicolas Bourbon.

(*e*) He dy'd *An.* 1557.

he has render'd the Language harsh and improper. Nevertheless we must allow, that *Ronsard's* Wit and Genius shine thro' his old Words: His greatest Adversaries, who have said the worst things of him, don't refuse him a good deal of natural Parts, and a lively Imagination.

Remi Belleau, whom *Ronsard* called the Painter of Nature, put the Odes of *Anacron* into *French Verse*. If he hits the Sense, the fine Touches and Delicacy have escap'd him.

Du Bellay was in great Esteem at the Court of *Henry II.* He is reckon'd the third Poet of the *French Pleiades*.

Racan and *Malherbe* came afterwards; and upon their appearing, the Face of Poesy changed. They are held in reputation to this day; and their Reputation seems to have grown with the Distance of Time from their Age. But each of them has his own, in a different manner from the Reputation of the other. *Racan* has more of the Genius; *Malherbe* more Spirit. The Works of *Malherbe* are extremely labour'd; but a scrupulous Regularity makes him sometimes dry. The Poems of *Racan* are more careless; but that Negligence has its Graces, and Graces which are superior to Art.

Theophilus, who follow'd them, fell into the childish Manner of Writing, by affecting too much to imitate the easy Style of *Racan*, and to avoid the study'd Manner of *Malherbe*. Like him, he copied Nature, of which he made the Romance; whereas *Malherbe* has made its Picture, or History (*f*). Push'd on by the Impetuosity of his Genius, he oft-times left

Judg-

Judgment behind him, and did not know how to sustain himself in the Flight. In some Passages, where he excels, he is inimitable ; any where else he never rises above the middle Rank.

Monfieur *Godeau* is remarkable for his Talent of Versifying with great Facility ; but has nothing either to move or warm ; empty, and without Matter of any moment, for the most part ; but scrupulously methodical in the Disposition of his Matter, such as it is ; and so uniform in his Expressions, that he seems to copy after himself, and knows nothing of the Art of diversifying his Turns and Figures (g).

I say nothing of Lyrick Poets who are yet alive ; or of those who are yet fresh in our Memory. It belongs to the Publick to judge of them, — which it is not allowable to anticipate : Nor does even the Judgment of the Publick become invariable, till Time (if I may use the Phrase) has put the last Seal to it.

The Nature of Poesy is both to please and instruct (h). That it may please, it borrows from Nature every thing that is charming and gay : It adorns its Diction with Number and Harmony ; and it never fails to employ the Marvellous and Pathetick in their proper Places ; so that it makes itself always entertaining and agreeable. That it may instruct as well has please, Poesy describes and exposes to View, and in a true Light, Virtue in all its Beauty, and Vice in all its Deformity ; and by Examples artfully managed, inclines us to love and embrace the one, and to hate and fly from the other. This is the End and Design it

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aims

(g) *Lettres de Mess. Despreaux & Maucroix.*

(h) *Heras de Arte Poetica*, V. 433, & 334.

aims at; which, that it may come at, and accomplish, it makes use of Imitation: Sometimes it sets before our Eyes the Action which it paints, and This is peculiar to the *Drama*.--- Sometimes it contents itself with narrating the Action; and this belongs to the Epick Poem;— in which the Action must be great and illustrious; and all other incident Actions must answer to it, if not in a necessary, at least in a probable manner.

Of EPICK POETRY.

WE are oblig'd to the *Greeks* for the Epick Poem; and *Homer* is the Father ther of it. His *Iliad* is the finest Production of the human Mind (*g*); in which the Beauty and Order of the Design, the Nobleness of the Expressions, and the Delicacy and Passion of the Sentiments; the Variety of the well-chosen Epithets, Metaphors, and Comparisons, are as much to be admir'd as they are inimitable (*b*). *Homer* is both copious and concise, grave and delightful. He treats grave Subjects in a sublime manner, and Matters of smaller Importance with Purity and Justness (*i*). After he has given in the *Iliad* the most lively Representation of the pernicious Disorders, which the Anger of *Achilles* had rais'd in the *Grecian* Camp; in the *Odyssy*, he gives the Representation of a wise Man toss'd about in the Sea of Adversity, always expos'd to new Dangers,

(*g*) Pretiosissimum humani animi opus. *Plin. Hist. lib. 7. cap. 29.*

(*b*) C'est le jugement de Denis d'Halicarnass.

(*i*) *Quintil. Instit. Orat. lib. 10. cap. 1.*

Dangers, and constantly superior to his bad Fortune: And in the Person of *Ulysses*, he shews us what Prudence and Virtue can do (k).

About 120 Years after *Homer*, *Hesiod* flourish'd, famous for his fine Genius, and the Sweetness of his Verse (l). I doubt, if I should call his *Theogony* a true *Epick Poem*; there is nothing that's great in it but the Subject. The Poets of the following Ages are of a low Character (m): Their Style is cold and languid; and they know neither the Regularity of Design, Goodness of Manners, Nobleness of Sentiments, nor the Beauty of Diction.

As the *Greeks* have but one *Homer*, neither The *La-*
have the *Latins* but one *Virgil*. The same *tins*.
Age saw the Reputation of *Ennius* both rise and die away. When we read, that the first *Africanus* would be laid in the same Tomb with this Poet, we ought to judge of it, as proceeding rather from his Friendship, than the Merit of the Poet (n). *Lucretius* succeeded; his Work is not so much an Heroick Poem, as a System of Nature. *Lucretius* discovers an uncommon and laudable Genius; and one must admire his Boldness who succeeded so well in painting of Objects, which seemed not at all made for the Pencil of a Poet (o). But his Works are but little read. *Lucretius* has not the Art of Pleasing, and Men for the most part seek after Pleasure. 'Tis true, he pretended to instruct; but you will find more solid

D 2

In^a

(k) Horat. lib. 1. Epist. 2. initio.

(l) Vell. Paternulus Hist. lib. 1. cap. 7.

(m) Coluthus Tiphiodorus, Musæus, Apollonius the Rhodian, &c.

(n) Liv. Decad. 4. l. 8.

(o) M. Abbé du Bas Reflex. critiq. sur la poésie.

Instruction in that excellent Poem compos'd by a great Cardinal on that very Subject, on purpose to refute *Lucretius* (p). The Epick Poem is not to be found in *Latin*, but in the *Æneid* of *Virgil*, the only Imitator of *Homer*; and which may be compared with the Original. If he has not all the Beauties of his Pattern, he has some others which are peculiar to himself. *Homer*, says an ancient Critick (q), *has more Genius, Virgil more Art; Homer more sublime, Virgil more correct. The former flies higher, and with greater Force; the latter, indeed, don't fly so high, but supports himself better, and never falls. Virgil is* blam'd for some Faults of Negligence, which a careful Revival, if he had had the Time, might have easily amended. His 5th Book is the most perfect of all, in the Opinion of some (r); and indeed it is exceedingly elaborate. *Homer* observes exactly the Truth of History. In this *Virgil* is inferior to him; the Episode of *Dido* is visibly fabulous, and the Arrival of *Æneas* in *Italy*, which is the Foundation of the whole Poem, is contrary to the ancient Traditions. *Homer* paints according to Nature: *Virgil's* Hero is a Hero of his own making; it is not *Æneas*, it is *Augustus*, whose Picture he has drawn with all that is fine in the Features of *Achilles* and *Ulysses*.

Under the Reign of this Emperor, *Pollio Varius* and some others apply'd themselves to the Epick Poetry. If their Poems had been as good as the *Æneid*, is it to be thought they would have been buried in Oblivion? *Ovid* their Cotemporary has a fine, lively Spirit

(p) M. le Cardinal de Polignac.

(q) Quintil. Inst. Orat. lib. 10. cap. 1.

(r) Montagne Essais, liv. 2, chap. 10.

rit and Imagination; he wants neither Humour nor Genius; and his Expression is so swift, it seems to run before his Thought; but he is very empty in his *Metamorphosis*; he sometimes commits Faults contrary to Judgment, which makes him go astray. *Lucan*, who liv'd under *Nero*, affected the Sublime without Measure; and if he sometimes hits it, he is oftener guilty of Bombast; he soars, he evaporates, he over-does his Paintings; and, by a childish Affectation, he loses himself in long Dissertations on natural Things. As for what remains of *Lucan's* Character, I could with *Montagne* (s) love him for his Veracity and Judgment, and prefer the Historian to the Poet.

As we descend from the Age of *Augustus*, we see Poetry begin to take a wrong Turn. *Valerius Flaccus* in his *Argonautes* is below the middle Rank of Poets; he is cold and languishing. *Statius* is never in his right Wits; his two Poems (t) have something, I don't know what, irregular and monstrous in them: He makes the Essence of the Epick to consist in a Pomp of Words. *Silius Italicus* is more regular and just in his Ideas, and more correct in his Arrangement; he writes the second *Punic* War in Verse, with a good deal of Art, but little Genius (u); his Diction hath nothing noble in it. These three Poets flourish'd in the Reign of *Domitian*.

Ausonius and *Claudian*, who made their Appearance in the Reigns of *Valens* and *Honorius*, were not able to overcome the Grossness of the Age they liv'd in; nevertheless, the *Mo-*

D 3

selle

(s) *Essais*, liv. 2. ch. 10.(t) *Thebais*, *Achilleis*.(u) *Plin. lib. 3. epist. 7.*

selle of *Ausonius* deserves in some Measure to be commended. *Claudian* is not equal enough in his Course; he breaks out, and makes disorderly Sallies; he has no Taste for the Turn of Verse; for his Verses fall almost always into the same Cadence.

About the same Time, the illustrious *Proba Falconia*, Mother of the two Consuls, made but a bad Use of her Wit and Memory, by the tacking together a great many of the Hemisticks of *Virgil*; and from that fantastick Junction or Soldering of these half Verses, resulted that ridiculous Cento or Rhapsody on the History of the old and new Testament.

The Italians.

This Sort of Poem took a little, and there were some who imitated it in the 16th Century. The *Italians* studied it, and *Lelio Caluppi* excell'd in it. They receiv'd at that Time, and were fond of every thing that had the least Mark of Antiquity; for they would, at any Rate, copy after the Ancients. *Dante* had open'd the Way 200 Years before; his Poem, which was look'd upon at first as a Comedy, pass'd afterwards for an Epick Poem (x). The mysterious Air it has all along, makes it so obscure, that it is with great Difficulty one can understand it.

He was succeeded by *Boiardo* and *Du Pulci*, who were for a long time the favourite Authors of their Countrymen; but yielded the chief Place, at length, to *Ariosto*, who was a greater Poet than all those who were before, if by Poesy nothing is to be meant but Versification; which, in *Ariosto*, appears both in Purity and Majesty. Notwithstanding these two Charms, his *Rolando* is an ill conducted Piece; and,

(x) See the Poetique of Castelvetro.

and, to speak plainly, it is nothing but a shapeless Heap of Stories, with little or no Connection; nor is the Marvellous blended at all with the Probable. The Books of Knight-Erantry had spoil'd the Taste and Way of Thinking. Could any thing solid, or consistent with good Sense, be expected from an Imagination, tho' really fine, if it was full of, and employed about Sorcerers, Giants and Monsters?

Under the Pontificate of *Leo X.* and *Clement VII.* the Light began to appear out of this Cloud, and Heroick Poetry to be better understood. *Trissin* was the first who shew'd that he knew the Rules and Nature of it. In his *Italy delivered*, we see an Imitation of the *Iliad* of *Homer*. *Tasso*, who came after him, surpassed him very far, tho' he seems to have taken from him the Plan of his *Jerusalem*; it is the finest Performance that ever came from *Italy*: The Design of it is admirable; the Ranging of the Fable perfectly regular, but unluckily the Execution does not always answer to the Project. *Tasso* affects to be witty, and his Thoughts for the most part are set off with false colouring; he gave in too much to the Way of the Age, and makes his Heroes over gallant. He forgets the Dignity of his Subject; his Descriptions are loaded with superfluous Ornaments; the strongest Passions oft times degenerate into gay Images and affected Turns. The Brilliant predomines in this Poem; one can seldom perceive the Truth in it. All these Poets wrote in *Italian*.

These who follow, wrote in *Latin*. *Fracastorius*, who had succeeded so well in his *Siphylis*, a Work in the Taste of the *Georgicks* of *Virgil*, makes but poor Work in his Poem of *Joseph*.

seph. *Sannazarius* was the better Poet; but shew'd little Judgment, by introducing into a sacred Subject all the Divinities of Paganism (y). The *Christiada* of *Vida* is not altogether free of this Fault. The Narrative of *Vida* is fine, his Style, which is extremely pure and pleasant, is but one continued Parody of *Virgil*, as it has been critically remarked (z). *Grotius* and *Heinsius* are too learned; great Learning does oft times extinguish the poetick Fire, and marring the Delicacy of Expression.

The Spaniards.

As for the *Spaniards*, *Lopez de Vega* is their *Homer*; he had great Elevation and Extent of Genius; but his Ideas are out of all Measure, and his Expressions hyperbolical; and as his Characters are extravagant, he never paints according to Nature, which loves Simplicity. The Obscurity of *Camoens* makes up all his Merit; the *Portuguese* admire him so much the more, as they do but little understand him; he has expressed very well the Pride of his Nation.

Our Language rejects equally the trifling Conceits of the *Italians*, and the monstrous Imaginations of the *Spaniards*; nevertheless, the Epick Poem has been the Rock against which our Poets have been always dash'd and lost.

The French.

The *Franciade* of *Ronsard* did hurt to his Reputation. Besides the Impropriety of the Terms, the Style is hard and dry. The first of these Faults is common to him with *Du Bartas*; the second, a long Time after was the Fate of *Chapelain* in his *Maid of Orleans* (a), which

(y) De partu Virginis.

(z) Tessier addit. aux éloges tires de l'hist. de Mr. de Thou, sur l'an. 1566.

(a) Ce poeme parut. an. 1656.

which would be a perfect Work, if the exact Observation of the Rules could supply the Want of Genius in the Composition of an Heroick Poem. The *Clovis of Demarets*, which is very good, with Regard to its Subject, Manners and Qualities, has no Sentiments which interest and affect, nor any Images which are natural. Truth is the Foundation of Poesy; and that which we call *True*, is never to be found but in Nature. Monsieur *Perrault* came afterwards, who admired so much the Merit of the Moderns, that he made no Scruple to prefer them to the Ancients, in his Poem of the Age of *Lewis le Grand* (c); which gave Occasion to a Quarrel that divided the Wits, and made them fight in several *pro* and *con* Essays.

Monf. *de Cambray*, when he published his *Telemachus*, made it evident, that one might at least try to equal the Ancients. There wants nothing but Versification to make this excellent Work an Heroick or Epick Poem, if it be true that Rhime is essential to it.

As for *Amadis* and other Romances of that Sort, they cannot have a Place here: They have what we call *The Marvellous*; but the Fiction is without all Manner of Probability. Besides, it would not be easy to find in them what may be call'd *The Style of Poesy*; and yet it's what constitutes a Poem, even in Prose; and is, as it were, the Spoul of it.

The

(b) Huetiana, art. 19.

(c) Publish'd an. 1687.

The DRAMATICK Poem.

WE remarked, that the Epick Poem narrates, and that the Dramatick acts: But the Action of the Drama is either Illustrious or Common. The Persons of the Drama are either Princes, or ordinary private People; and this is what makes two Kinds of the Dramatick Poem, *viz.* Tragedy and Comedy: Both one and the other make use of *Iambick* Verse, as most proper for Dialogue. Both of them are originally from *Greece*.

T R A G E D Y.

TRAGEDY at first was only a simple Chorus, which sung the Praises of *Bacchus* dancing. *Thespis* led about in a Waggon through the Towns of *Attica* a Company of this Sort of Actors, all bedaub'd with the Lees of Wine. *Æschylus* gave them Buskins and a more decent Mask; he made his Actors mount a Theatre, and made them act greater and nobler Pieces(*d*).

Sophocles and *Euripides* augmented the Pomp and Shew, and brought the Poem to Perfection, and found out the Art of interesting and engaging the Chorus in all the Action.

We

(*d*) Horat. de arte poet.

(*e*) Despreaux, art poetiq. chant. 5.

We may confine the *Greek Tragedy* to those fifty Years which follow'd after the Expedition of *Xerxes* ; that is, the Epoch of the good Days of *Greece* ; then the Arts and Sciences were carried to the greatest Degree of Perfection. Both before and after that, bad Taste and Ignorance prevail'd. We need seek for no other Cause of bringing the Arts and Sciences so soon to Perfection, than that Emulation among the Learned and skilful Artists, and the Distinction and Rewards which were proposed for the Performances. I take Notice of this, particularly with regard to Tragedy. *Cimon* having brought back the Bones of *Theſeus*, the *Athenians*, on this Occasion, establish'd a Trial of Skill and literary Combat among the Tragick Poets. Instead of a Goat, which formerly was the Reward of the best Singer or Performer, the Victor received an honourable Recompence amidst the Applauses of all the Assembly. The Prize or Crown was often adjudged to *Æschylus*, who was the Honour of the Stage.

Sophocles, tho' very young, enter'd the Lists; and having presented his first Piece, he carry'd it against his Antagonist, by the Judgment of *Cimon*. Thus this young Tragedian got the Government of the Theatre, or rather shar'd it with *Euripides* ; for *Æschylus* had given it up, and oppress'd with Grief had retired into *Sicily*. Let us stop here a little, and examine the different Characters of those three Poets.

Æschylus has Elevation, and perfectly noble Ideas ; but he swells sometimes in his Poems in place of being truly great. His Fictions are prodigious, his Persons monstrous,

strous, and his Images too large : He observes no Order (*f*).

Euripides excels in the Expression of Love and Fury : He is tender, passionate and pathetick. His *Andromache* made so strong an Impression upon the *Abderites*, that they were seiz'd with a Kind of Madness. Their Imagination was so disorder'd by the Representation of that Piece, that they both look'd and spoke as if they had lost the Use of their Reason (*g*). Tho' *Euripides* (*b*), says *Longinus*, is not naturally inclin'd to what we call *the Great* ; yet he don't fail to rise when the Subject requires it ; and he is happy in giving to the most common Thoughts a certain Turn of Expression, which renders them sublime (*i*). The Moral of this Poet is very fine ; he had probably profited by the Conversation of *Socrates* his intimate Friend.

Sophocles paints Things in their proper Colours ; no body ever made a better Use of Terror and Compassion, the two great Resources of the Tragick Poem ; it is upon this Account, that his *Oedipus* is the most perfect Model, and the most regular Piece of all the Ancients have left us in the Dramatick Kind. In general, the true Character of *Sophocles* consists in this, that he represents and exhibits Man such as he ought to be, while he paints him as he really is ; and that he embellishes all his Pictures, by preserving the Manners, which he intended the Person should have. These Poets were not satisfy'd with
pleasing

(*f*) Aristoph. Clouds, act. 5. Quintil. lib. 10. cap. 1. Longin. sublime, ch. 13.

(*g*) Lucian. de ratione scribend. hist.

(*b*) Loco cit.

(*i*) Longin. cap. 32.

pleasing only ; they studied to instruct also. In this View, they brought the Passions upon the Stage, in order to cure them. The Panick they represented they were seiz'd with, the Tears which they made to flow, had no other End, but to fortify the Spectators against vain Fears and foolish Compassion. Tragedy, after this, declined among the *Greeks* ; nor could any, or all of 'em, who mounted the Theatre, as *Lycophron* and *Sofistheus*, maintain the Dignity of the Buskin.

It was pretty late before the *Romans* were The Re-acquainted with Tragedy. After the *Carthaginian* War, they began to read *Æschylus* and *Sophocles*, and they endeavour'd to imitate them. *Livius Andronicus*, *Accius*, and *Pacuvius* were the first Tragick Poets *Rome* ever saw. *Horace* allows only the Glory of the Invention to *Livius* ; and he looks upon *Pacuvius* to be the most learned of these Poets, and *Accius* to be the most sublime (l).

The Humour which the *Romans* took for Comedy, made Tragedy neglected for some time ; but they soon found they must return to it ; for the great Men retain'd always a Taste for it. The ancient Grammarians have transmitted to us the Names (m) of the *Thyestes* of *Gracchus*, of the *Alcmeon* of *Catullus*, of the *Adrastus* of *Cæsar*, of the *Octavia* of *Mæcenæ*, of the *Medea* of *Ovid*. All these Tragedies are lost, and we have none preserv'd but those of *Seneca* ; whether we are obliged to *Seneca* the Father for them, as some pretend, or to *Seneca* the Philosopher, according to the common Opinion. But however that may be, if the Learned don't agree about the Author of these Pieces,

(l) Lib. 2. Epist. 1.

(m) *Censorinus*, *Festus*, *Priscian*, *Quintilian*, &c.

Pieces, it is certain they may find in them whole Passages full Fire and Vivacity, where it is not easy to find good Sense and Justness of Thought. They all agree, that *Seneca* would speak well, if he spoke naturally. In the time of *Vespasian*, one *Maternus* made Tragedies; and about three Ages after him, under the Empire of *Constantius*, an *Ægyptian* call'd *Andronicus* wrote for the Theatre.

The Scenical Sports made a Part of the Worship of the false Gods; and these Shews were to be seen no more after Paganism was abolished. In Process of Time, Ignorance made them forget those things which their Abhorrence of Idolatry had made them reject. So that Tragedy slept, and did not awake till the fine Arts emerg'd out of that Eclipse, the Barbarity of the Northern People had kept them under for several Ages.

The Ita-
lians.

Trissin was the first of the *Italians*, who composed Dramatick Pieces; and his *Sophonisba*, which was acted at *Rome* under the Pontificate of *Leo X.* did a great deal of Honour to that Poet. He had for Successors only *Cynthio* of the Academy of the *Affidati* at *Pavia*; *Speron*, *Speroni*, and *Tasso*. The Tragedies of the first are but little thought of; that of the second, call'd *Canacée*, has had some few Partisans who stood up for it. And the *Torismond* of *Tasso* is the most imperfect Piece of his Works, in the Opinion of *Tasso* himself. I don't believe, that during the Course of the 17th Century, there have appeared more than thirty Tragedies in *Italy*, Operas excepted. Every Nation stamps its own Character on a Tragick Poem. The *Italians* give their Persons an Air of Declaimers.

The

The *Spaniards* bring none upon the Stage ^{The *Spaniards*.} but amorous Knights; 'tis by them, that the Heroes of Antiquity have been made to act the Part of Lovers.

The *Engliſh*, on the contrary, naturally love ^{The *Engliſh*.} cruel things, and are delighted with a bloody Stage. Their Language is very fit for Tragedy.

The *Dutch* are too dull for a Poem which ^{*Dutch*.} requires ſo much Spirit and Nobleneſs of Thought. The Generality of their Nation are but little acquainted with the Rules; and their Learned, who have applied to this ſort of Poefy, have compoſed in *Latin*.

Etienne Jodelle was the firſt who enrich'd our ^{The} Language with the Tragick Poem. After him, ^{*French*.} *Jean de la Peruſe* wrote ſeveral Tragedies, which got him great Reputation. And *Robert Garnier* ſurpaſs'd them both. This is the firſt Age, and the Infancy of the *French* Drama. Some Poets who came after, were (if I may ſo ſpeak) the Twilight to the Riſing of the great Theatral Poefy. *Corneille* appeared after them, and diſplay'd on the Scene ſuch Beauties as were till then unknown. At firſt he accommodated himſelf to the Taſte of his own Time in his *Clitandre*. After that, in his *Medea*, he took flight all of a ſudden, and carried it higher in his *Cid*. In vain did *Scudery*, by a Poem more regular indeed; but of the middle Claſs only (*n*), attempt to carry the Suffrages againſt *Corneille*, tho' ſupported by the Protection of a great Miniſter (*o*). This illuſtrious Poet took no other way to pary the Thrufſts, and defeat the Devices of his Adverſary, than by producing new Wonders, and diſtinguiſhing himſelf by Maſterpieces

1632.
1636.

(*n*) l'Amour Tyrannique.

(*o*) M. Cardinal de Richelieu.

- pieces of the Art, far beyond common Rule
 1641. and Capacity. He compos'd the *Horatii*, and
 1643. he mounted in his *Cinna* and *Polieutes* to the
 1644. highest Degree of the Tragick Sublime: His
 1646. *Pompeé* came afterwards, then *Rhodogune*; to
 1649. this succeeded *Theodose* and *Pertborite*, which
 1659. were but little lik'd. Then *OEdipus*, *Serto-*
 1662. *rius*, *Sophonisbe*, and *Othon*; in all which there
 1667. is a certain Hardness and Dryness of Style.
 1671. *Attila* followed *Othon*; and it was by *Berenice*,
 1673. *Pulcherie*, and *Surena*, that this great Man fi-
 1675. nish'd his Course. These last Pieces are very
 weak, tho' not without their Beauties. After
 all, they are the Productions of an old Man ;
 but this old Man is *Corneille*.

At this time the ingenious Mr. *Racine* began to establish himself on the Theatre. His first Essay was the *Thebaide*, which he wrote in the Taste of *Corneille*; but being born to be a Model himself, he very soon left off that way. And from a Design to please, he studied the Taste and Character of his own Age. The Reading of Romances had given a turn towards Tendernefs, lively and passionate Sentiments, towards a pure and elegant Expression, and towards Descriptions and Painting according to Nature, and with the Graces, which never fail to please the Ladies, whose Opinion, with respect to the Stage, is of so great weight. All this Mr. *Racine* observing, took to this way in which he excell'd. He publish'd his *Alexander*, which, tho' disapprov'd by *Corneille*, charm'd all *Paris*. He compos'd it when he found he had a surprizing Facility in making Verse. Instructed afterwards by Mr. *Despreaux*, he carried Tragedy to a Point of Perfection, which was wanting in his first Pieces. Scarce was he thirty Years of Age, when in his *Andromache*,

1670.

dromache, he revived the favourite Passions of the Ancients, viz. Terror and Pity. He degrades, 'tis true, *Titus* in his *Berenice*, by giving that Prince a soft and effeminate Character. And he does too great Honour to *Junia*, whom he describes as a virtuous Lady, in his *Britannicus*. *Bajazet* was not at distance enough to make him admired, as he deserved. The Author of that Poem was more happy in his *Mithridates*: If he had a Veneration for *Sophocles*, he strove against *Euripides*; and the *Iphigenia* of the Modern is by no means inferior to the *Iphigenia* of the Ancient. A Piece is not perfect, but by an exact Observation of the Rules: *Phædra* is a Proof of it. If all our Tragedies did resemble it, they would be so much the less contrary to good Manners. How amiable is Virtue in that Tragedy! And Vice, how monstrous and frightful! But what Greatness, and what Sublimity in his *Athalie*! The Figures are bold, the Sentiments high, the Images pompous. One finds, over all the *Athalie*, the masculine Eloquence of the Holy Scriptures. After the Death of Mr. *Racine*, the Theatre has been a Prey to Writers, not worthy to tread in the Steps of this great Poet. I except some few, who have been applauded. In a word, they have not imitated *Racine* but in the weakest Passages, and which they have even managed more weakly.

The *Athenians*, who were naturally Jesters, Comedy and given to Rallery, were the Inventors of at *Athens*. Comedy. This Poem is the Imitation of the Ridicule, or what is observ'd to be ridiculous in Men; and the End which it proposes to itself, is to render us more agreeable and useful to Society, by making us correct those Faults, which its Action exposes. *Eupolis*, *Cratinus* and *Aristophanes*,

ristophanes, the first famous Writers of Comedy, appear'd all at the same time, during the *Peloponnesian* War. And they took the Liberty in their Verse, to paint and describe to the Life, all that they knew of Debauchees (p). Not content with reproving private People, they neither spared the chief Magistrates, nor Generals of the Army. *Cleon*, *Lamachus*, *Pericles* and *Alcibiades* were play'd, and chastised by turns. *Aristophanes*, when he mounted the Stage, eluded the pernicious Designs of some of them, and render'd the others suspected; and by this means he prevented the Oppression of his Country. It is not at all astonishing, that a People jealous of its Liberty and Authority, should take Advice so agreeable to its Inclination, especially when seasoned and recommended with all the Delicacy of the *Attick* Idiom. What I most admire, is, that this same People, so haughty and unmanageable, should patiently suffer this Poet to attack the Republick in a Body, to tell and admonish them of their Duty, and to reproach them with their Faults, in so free a manner, as would appear to us very hard at this day.

The other Comical Poets (for they were very many) had neither the Talents nor the Modesty of *Aristophanes*. Their Assurance was carried so far, that the Government thought fit to put a stop to that Licentiousness, by discharging the Actors to wear Masks that had a Likeness with any body, and the Poets to name the Persons. There was therefore a necessity to make supposititious Names, and to feign the Subjects; and thus Comedy changed its Appearance, and it was call'd the middle Comedy, to distinguish it from the ancient,

which

(p) Horat. Lib. 1. Sat. 4. intio.

serious, the other jocular. *Plautus*, who distinguish'd himself in the first sort, copied the *Greeks*, having no Guide of his own Nation; and by a too slavish Imitation, he made *Greek* Persons appear on the *Roman* Stage. The Critics commend in this Poet the Fertility of his Invention, but find fault with his mean and poor Jest. *Terence* had less Genius; he wanted a great deal of Subject-Matter, and could make nothing of a little. He hardly makes one of his Pieces from two of *Menander's*: but he has more Art than *Plautus*. His Unravelings of the Plot are more natural. He is to be admired, says *Montagne* (s), for his representing to the Life the Movements of the Soul, and the Conduct or Quality of our Manners. Our Actions throw us always upon him. One cannot read him, without finding always some new Grace and Beauty.

Panto-
mimes.

Terence, as did all the other Poets, made the Scene of his Comedies in *Greece*. It was not till the Reign of *Augustus*, that the Comedians, abandoning the *Greeks*, dar'd to play the very People who were to be the Judges of their Pieces (t). At that time, there was a new kind of Comedy to be seen at *Rome*. The two first Inventors of it were *Pylades* and *Batillus*, who form'd two Schools of the *Pantomimes*, the Succession of which continued uninterrupted. This Art was a dumb Representation, wherein, by very regular Gestures, the Actor express'd all he would say (u.)

The Epoch of the Cessation of Comedy in the West, is the same with that of Tragedy. It may be fix'd at the taking of *Rome* by *Totilas*,

(t) Nil intentatum, &c. Horat. de Arte Poet.

(u) Mr. du Bos Reflex. crit. sur la Poésie, 3^e c.

las, Anno J. C. 546 ; and the Revival of it is the same also. But tho' most People of *Europe* have cultivated this sort of Writing, there are to be found few Comic Poets of Reputation, and fewer yet who have deserved it. I confine myself to *Tasso* and to *Machiavel* for *Italy*, and to *Lopez de Vega* for *Spain*. *Amyntas* is the Masterpiece of *Tasso*, in the Opinion of many, and *Tasso* thought so himself. All the *Italians* have striven to imitate him. Tho' *Guarini* in his *Pastor Fido*, and *Bonacelli* in his *Filli de Sciro*, are perhaps the only, who well express'd the principal Beauties. This Poem, nevertheless, is not without Faults ; it errs thro' too much Wit ; the Poet jests upon his own Subject ; and *Terence* would have kept more Measure, if he had had the same Matter to manage. *Machiavel* has succeeded better in his *Mandragoras*, than in his *Clitias*. The first is one of the best Comedies extant.

The *Italians* would needs act, upon our Stage, the Pieces compos'd according to the Taste of their own Nation ; but they could not amuse us. They had better Success when they bethought themselves of conforming to the *French* Manners. If they express the Ridicule more naturally than we, the *Spaniards* see and perceive it much better. *Lopez de Vega* is the first for the Stage. They reckon about 300 Comedies of his ; for he had, says a good Critick (x), a vast deal of Wit, a fine natural Turn, and an admirable Facility : but his Genius was too extended to be subjected to Rules, wherefore he gave free Scope to it, because he was always sure of it.

E 3

Our

(x) Le P. Rapin Reflex, sur la Poetique.

In France.

Our first Comedies were far from being a regular Poem; they may be look'd upon as a Contexture of Buffoonry. Such is the Character of those which the good King *Lewis XII.* took pleasure to hear (y). They have not been thought worthy to be handed down to Posterity. And the Comedy of *Patelin* is the only one which has preserv'd to itself a Place in the Closets of the Curious. When the Field of the *Belles Lettres* began to be grub'd up, Comedy took a serious Air, and appear'd with more Decency. *Margaret of Navarre*, who was call'd the *Tenth Muse*, and the *Fourth Grace*, amused herself with the Comick; and, by a false Zeal, treated of Subjects too venerable to have been expos'd upon the Stage (z).

The Poets which flourished under the Reign of *Henry II.* running too much upon the Allegory, were mistaken as to the Nature of the Dramatick Poem. Some time after *Malherbe*, by purifying the Taste, made every thing that had appear'd upon our Stage despicable. And our Comick Poets, finding nothing of their own could satisfy the Audience, had Recourse to the *Spaniards* our Neighbours, and set about the copying of their Comedies. *Christian* and *Hurdi* signaliz'd themselves in this new Task. *Corneille*, who came after them, dignified the Drama. His *Melite* appear'd something divine, when compar'd with the Pieces before it; and it was followed by the *Veuve*, and with the *Galerie du Palais*. In these three Comedies was seen, for the first time, that Simplicity

(y) Harangue du Chancelier de l'Hôpital, prononcé aux Etats d'Orleans, 1561.

(z) See in the Collection of the Poesies of that Princess the Comedies of the Nativity of our Saviour Jesus Christ, and of the Innocents, and of the Desert.

plicity of Action so much extoll'd by the Ancients. The Author of *Cid* was not to be known in the Comical Illusion. The *Menteur* pleas'd yet more; all these Pieces were in the *Castilian* Taste. Mr. *Racine* form'd himself from greater Models; and his *Plaideurs*, compos'd in Imitation of the *Wasps* of *Aristophanes*, made us sensible of the *Attick* Salt, and of the finest Satire. This Piece was too fine for the gross of the Spectators, and did not succeed in its two first Representations. *Moliere* took from the *French* both the Persons which he acted, and the Manner of acting them. He began with his Comedy of the *Etourdi*, and he ended with the *Malade Imaginaire*. If in all his Pieces he excell'd all the Comedians of his Time, he surpass'd and outdid himself in his *Tartuffe*, and in his *Misanthrope*. 'Tis there one finds a perfect Imitation of Manners, natural Images, and just and well-mark'd Characters. After the Death of *Moliere*, *Renard*, *Boursault*, and the two Authors of the *Grondeur* (a), laboured for the Theatre with tolerable Success; but none of those Poets, far from surpassing, came up-fides with *Moliere*.

1636.

1668.

1653.

1657.

It must be acknowledged, that nothing is more hard to make than Comedy; as the Original, which it proposes to imitate, is expos'd to the Eyes of all the World. The Publick pardons nothing; it requires a perfect Likeness.

During the Youth of the late King, Ballads, one of the prettiest Ornaments of Comedy, were carried to the greatest Perfection. Mr. *Benferade* made the Verses which were recited in it; Verses of a kind altogether new, in which

E 4

the

(a) L'Abbé de Brucis & Palaprat.

the Characters of the Persons who danced, were blended with the Characters of the Persons who acted and represented: It is easy to conceive what a Delicacy these Allegories require, that they may be sharp without being bitter, and obliging without being insipid.

Opera.

If the Ballad pleases by its fine Allusions, the Opera charms the Eyes and the Ears by the Magnificence of the Show, and by the Beauty of the Musick. To pretend to examine this Poem according to the Rules of the Drama, were to expose one's self, and to make a false Judgment. 'Tis neither in *Aristotle*, nor in *Horace*, that you must search for Principles, applicable to a sort of Poesy, which neither *Horace* nor *Aristotle* knew. An Opera is perfect, when to an excellent Concert there is join'd an ingenious Variety of the Scene; and the Machines, Chariots and Flights, which seem to disdain the Severity of Tragedy, throw in the Marvellous, embellish the Fiction, and supply the Place of Probability.

'Tis doing too much Honour to the Opera, to derive it from the *Greeks*; its Origin is not so ancient. They who pretend, that the (*b*) *OEdipus* of *Sophocles* was sung from one End to the other on the Stage of *Atbens*, as the *Atys* of *Quinault* is sung upon the Stage of *Paris*, do but ill understand the *Melopœa* of the Ancients, which, among the *Greeks*, was only a simple, melodious Declamation, which had indeed different Modes, but which was very different from musical Singing. In the Opera, the Poesy is subjected to the Musick, and the Musician regulates the Poet.

The *Italians* invented this kind of Poem, and the Abbé *Perrin* introduc'd it into *France*,
Anno

(*b*) *Ferrari*, Abbé *Gravina*, &c.

Anno 1650. This Show did not take at first. The Persons of Buffoons, which *Gilbert* and *Perrin* employ'd in it by an over-scrupulous Imitation, did not please. Mr. *Quinault*, who succeeded these two Poets, perceiv'd their Error. He had had no great Success in the Dramatick, but was more lucky in the Lyrick of the Theatre, which he brought to great Perfection. Mr. *Despreaux* (c), whom we can't suspect of flattering him, acknowledg'd he had a particular Talent of making Verses fit to be sung. Besides, *Quinault* was naturally tender, and had an admirable Facility of conforming himself to the Ideas of *Lully*.

Nevertheless, it must be own'd, his finest Operas have had Censors: They would have Images and Painting in a sort of Poem, which requires Sentiments only. 'Tis but very lately they came to understand, that that which pass'd with them for a Fault, makes the very Merit of his Poesy. The Poets who succeeded *Quinault*, have come far short of him; for amongst all of them, which over-run *France* without number, none are accounted of but *Thetis* and *Peleus*, *Iphigenie* and *L'Europe Galante*; which Judges equally esteem with the good Operas of this charming Author.

Tho' it be true, that the first Men were all Pastoral
Shepherds; yet 'tis only by Conjecture that a Poesy.
learned Wit of this Age (d) pretends, that the
Bucolick is the most ancient of all Poesies. We
see nothing of this pastoral kind before the *I-*
dyllicums of *Theocritus*, who flourished at *Syra-*
cuse about the 119th *Olympiad*. In the most fer-
tile Country of the World, and under the most
serene

(c) See Reflex. sur Longinus.

(d) Fontenelle Disc. sur l'Eglogue.

Ancients.

serene Sky, the Shepherds of *Sicily*, void of Care, gave in to the Taste and Love of Poesy and Musick, which the Sweetness of the Climate naturally inspired them with: These are the Persons whom *Theocritus* introduces, after having dignified them a little. He copies from nothing but Nature, but neglects nothing that she has beautiful. And I don't see with what Reason some reproach him for an Air a little too Pastoral; for he treats rural Affairs with all that simple Sincerity, and with all that Delicacy that the *Greek Language* was capable of. *Moschus* and *Bion* make their Shepherds more polite. *Virgil*, who had taken *Theocritus* for his Model, comes always up with him, and sometimes surpasses him. He is more exact and more judicious: His Character is Simplicity, Chastity, and Modesty. *Virgil* left no Successor. *Calpurnius* and *Nemesianus* wrote in a little way. Among the Moderns, *Petrarch* reviv'd the *Eclogue* in *Italy* in the 14th Century; but it was not carefully cultivated there: But in the 16th, *Mantuanus*, *Pontanus*, and *Sannazarius*, ran all the same Course. The first has nothing common with *Virgil* but his Country. The *Eclogues* of the Fishers of *Sannazar* have nothing of the Youth of the Author. The Publick has justly preferred them to all the other Works of this famous Poet. *Bonarelli*, *Guarini*, and *Marini* came afterwards, and followed the Taste that prevailed then. They wrote with Spirit, but in a Style not so natural, and made their Shepherds too polite. The *Italians*, at that Time, were Admirers of the Pastoral Comedy; they had taken the Idea of it from the Tragedy of the *Cyclops* of *Euripides*; and it is, most probably, that which the *Romans* call'd the *Satyrical Comedy*.

Moderns
in Italy.

As

As the *Spaniards* stretch all the Subjects they treat, there is no Reason to be surprized that *Louis de Gongara*, and *Camoens*, pass over the Bounds of the Pastoral. *Vida* paints the Persons of his Eclogues after those of *Virgil*, whom he imitates with the most scrupulous Exactness. In Spain.

Ronsard falls into the other Extreme. He fashions his Shepherds like those of his own Country, and of his own Time: He leaves them all their Rusticity. The Contemporaries of *Remi Belleau* found in this Poet a florid, sweet, and easy Style. Mr. *d'Urfè* in his *Astrea* may be look'd upon as an Original: This Poem, in Prose, was the Fondling of all Europe for Fifty Years; it is a Picture of all the Conditions of the Life of Man; it leaves nothing to be wish'd for on the Score of Invention, of Manners, and of Characters. It is not a fabulous Picture, but whose Histories, covered over with an ingenious Veil, are founded in Truth. The more the Pictures of *Astrea* are fine, the more are they dangerous. A great Bishop (e), affected with the Abuse which the most part of Writers made of Poesy, would gladly have brought it back to its true Use, and composed Dialogues in the Strain of the Song of *Solomon*. I commend so pious an Intention; but, not to dissemble, I find more Poesy in the Pastorals of *Racan* and the Eclogues of *Fontenelle*. In France.

Satire instructs agreeably, by discrediting Satirick Vice in a sprightly, pleasant, and different Manner. It is a Poem the *Greeks* never tried, tho' their ancient Comical Writers gave the Hint and Idea of it to the *Romans*. *Lucilius*, Contemporary with *Terence*, is the first who

(e) Mr. Godeau dans ses Eglogues Chretiennes.

who wrote Satires. As he form'd himself from *Aristophanes*, he took from this Poet a great deal of Pleasantry and Delicacy (f); but, full of his Model, he let a great number of Greek Words slip into his Writings, which made his Style extremely harsh. He is also found Fault with for the unhappy Talent of running on, in making a great many Verses all at once, without giving himself the Trouble to polish them.

Horace, who flourished in the best Days of the Latin Poetry, imitated *Lucilius*, where he was worthy of Imitation, without falling into any of his Faults; he reprehended the Disorders of Rome with so good a Grace, and with that Art and Address, that he can never be too much admired. *Perseus*, who appear'd under the Reign of *Nero*, attack'd the Works of the Orators and Poets of his Age; he did not even spare the Emperor himself; but he could not guard against the bad Taste which began already to be introduced; and by affecting to be concise, he became obscure. He has a certain Air of Chagrin, which is displeasing. *Juvenal* wrote Satires after the Death of *Domitian*, more like a Declamer than a Poet. *Marcellus* throws out a great deal of Bitterness in his insolent Mimicks: He dar'd even to rally *Marcus Aurelius* and *Lucius Verus* in their Lifetime.

In the Time of these Emperors, *Lucian*, a Syrian by Birth, compos'd his Dialogues in Greek, full of strong, lively, and satirical Painting: They would have been more agreeable, if the Author had had less of the Buffoon, and more useful if he had less of the Atheist.

I have

(f) Hor. lib. 6. Sat. 4. v. 7, 8. Sat. 10. v. 3.

(g) Sat. 10. v. 20.

I have spoken else where of the Satire of *Seneca* upon the Emperor *Claudius*, of *Don Quichot de Cervantes*, and of the *Catholicon d'Espagne*.

The Satire of *Rabelais*, the first that appeared in our Language, is the most learned and the most general of any was ever made (*b*). 'Tis Pity that Writer should have mix'd such corrupt and nasty Filth with so fine and ingenious a Moral. *Regnier* has no more Regard to Decency than *Rabelais*; he scatters Ordure amongst his Verses; setting that aside, he is read as yet with Pleasure, notwithstanding his old Style. Tho' the Ancients are almost always superior to the Moderns, Mr. *Despreaux* seems to have got the better of them with Regard to Satire. This illustrious Author is remarkable for sure and judicious Criticism, supported with all the Force, Vivacity and Harmony of Poesy; he has imitated the Ancients, but he has made their Treasures his own. Like them, he has always new Turns, and knows how to say, what was never before said in our Language. Foreigners have apply'd themselves but little to this Way of Writing. There is none, that I know, but the Satire of *Thomas More* against the *Germans*, that deserves to be taken notice of.

The Fable, or Apologue, is a Way of instructing Mankind in Morality by the Means of Beasts and inanimate Things, which are made to speak. The Use of the Apologue is very ancient, and the Scripture gives us two Examples of it among the *Israelites*, viz. The Fable of *Joatham*, Son of *Gideon* (*i*),
and

(*b*) Sorberiana, let. 12.

(*i*) Jud. cap. 9. v. 8.

and that of *Joash* King of *Israel* (k). The *Egyptians* had too much Spirit to be ignorant of so ingenious a Way of Instructing; it is at least certain, that it was not unknown to the *Greeks*, who had learned all their Politeness from the *Egyptians*; for we have the Apologue from the *Greeks*. *Æsop* is the Father of it. He was a *Phrygian*; and if we may believe the Author of his Life, was born about the 57th Olympiad, 200 Years before the Foundation of *Rome*. He wrote his Fables in Prose, and *Socrates* (l) put them in Verse, according to the reiterated Order of the Gods.

Year of
Rome 261.
bef. J. C.
494.

The Apologue was in Esteem at *Rome*, from the Beginning of the Republick. It is well known, what Use *Menenius Agrippa* made of it in the first Sedition of the People, to reclaim and appease the factious Citizens, who had retired to the *Mons Sacer* (m). It was either during the Life, or a little after the Death of *Æsop*. It may be believ'd that *Phædrus* brought from *Greece* the Fables of this wise Man, and made them known to the *Romans*. This freed Man of *Augustus* translated them into *Latin* Verse with a singular Elegance, and extreme Brevity. After *Phædrus*, *Avienus* turn'd the same Fables into Verse under the Reign of *Theodorus* (n). This Author is strong, and has some things above the Age he liv'd in (o); but he is far from that noble Simplicity of former times.

In Use a-
mong the
Moderns.

The Moderns have imitated the Ancients in this, as in a great many other things. I pass by

(k) Kings, lib. 4. cap. 14. v. 9.

(l) Plaut. Phædo. p. 492. Edit. Lat. Marc. Ficini.

(m) Tit. Liv. dec. 1. l. 2.

(n) Vossius de poet. Lat.

(o) Baillet jugement sur les poetes.

by Foreigners and our own old Fabulists. *M. de la Fontaine* has effac'd and out-done them all. I stop at him: This excellent Writer joins to the good Sense of *Æsop*, a Gayety, an Air of Sincerity, and a jocund Erudition, which render him the Original, when compar'd with his Models; and which one would not have thought possible to have been introduced into this Way of Writing. Mr. *Patru* did not think our Poesy could adopt the Apologue; if Mr. *de la Fontaine* had followed the Opinion of Mr. *Paru*, the *French* Muses would have been deprived of one of their greatest Ornaments. I have said elsewhere, every Language has its Genius. The Fabulist, of whom I speak, has observ'd the Turn which agrees with ours. On the contrary, Mr. *de Benferade* would needs improve upon the Brevity of *Phædrus*, and reduce 200 Fables into so many Stanza's of four Lines. These Stanza's are not so much as read, while *Fontaine's* Fables are got by heart.

Elegy is of a Stile a little higher, but easy Elegy. and tender; it describes Love and Grief. The Heart alone must speak in this Poem; all in it is *Sentiment*. The Elegies of *Philetas* and *Titæus* are, for the most part, lost: And we Ancients. have none of the Ancients, but one of *Callimachus* on the Bath of *Pallas*. *Tibullus*, who came into the World under the Consulate of *Hirtius* and *Pansa*, is the chief of the *Latin* Elegiack Writers in the Judgment of great Masters. *Propertius* follow'd him very soon, and came near up with him, tho' nothing so soft and polite; however he has a good deal of Nobleness of Thought. *Ovid*, too much an Admirer of his own Wit, borrows sometimes the Language of

of Nature (*p*). His Elegies have something graceful and amiable in them. This Poet speaks of the smallest matters with a good Grace; 'tis true, he enlargens and diverts himself a little too much, and his Thoughts upon the Medals of *Cæsar*, which he had received in his Exile, would be admirable, if they were not so fine and pretty (*q*).

These three Poets liv'd in the Reign of *Augustus*; under the following Emperors the Elegiack Poem perished, and did not appear again till the Sixteenth Century, having very little Resemblance of its first Origin.

The
Moderns.

I know nothing of this Kind above the middle Size, but *Molza* the *Italian*, *Lockius* a *German*, and *Sidronius* a *Fleming*. Mr. *Ménage* rais'd Elegy from the low Estate in which it languish'd so long among us. This Poet, according to Mr. *Segrais*, knew the Justness and Harmony of Verse; if he has taken nothing out of his own Stook, he has at least a good Taste, and pick'd out the best of what others had said, and has put his Materials most artfully together. No body has out-done him, but *Madame la Countess de Suze*, whose tender and delicate Poesies seem to have been dictated by the Graces.

Epigram.

The
Greeks.

We have said enough of Poems, which require some Length; let us pass on now to the least of the Works of Poesy. The Epigram is of this Number. The *Greeks* made it run upon a natural and delicate Turn of Thought; and they made the Grace and Beauty of it consist in a witty and reasonable Sincerity. It is hard to keep this Mean and
Middle

(*p*) *Nimium amator ingenii sui, laudandus tamen in partibus.* Quintil. inst. orat. l. 10. c. 1.

(*q*) *De Ponto, lib. 2. ep. 8.*

Middle Point; and I will confess with Reason, that some Epigrams of the Antology, (as they call 'em) by being too simple, become insipid; and others, out of an Affectation to please the Taste and tickle the Fancy, fall into an empty and idle Subtilty. *Catullus* followed the *Greek* Manner; but, free of its Faults, he gave to all his Epigrams, unknown to the *Romans* till that Time, an equal polishing (r).

Martial, from a false Taste, which took place from the Time that the Purity of the *Latin* was corrupted, sought and endeavoured to flatter the Judgment by suspending it, and afterwards to surprize it by some quaint Word; that Fall to which, for ordinary, one don't give Attention, and which oft-times contains a double Meaning, makes all the Finery of the Epigrams of this Poet. Some Ancients have call'd it an agreeable Sophism (s), and we call it by the Name of a Point. To speak by Points is not natural Language; it makes one fall often into the Cold and the Childish: So those Epigrams of *Martial* which are good, are not those which are stuck full of Pricks, and where he plays upon a Word. If I am allow'd to say what I think, the mere jesting Ralleries of this Poet please me as little, as the flattering and sometimes excessive Praises which he bestows upon *Domitian*. I love that which instructs me, which concerns and affects me, and moves me. I prefer, for Example, to all his Plays upon Words, which do nothing but tickle one, the

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Sentiment

(r) Expression de Montagne, liv. 2. cap. 10. de ses Essais.

(s) Macrobius and Seneca.

Sentiment which he attributes to *Arrias*, because it touches me ; and I could wish he had left none behind him but these few Epigrams, which commonly please all the Learned. I don't think we ought much to regret the Loss of those of *Pliny* (t). He adapted himself well enough to bright Thoughts and Sallies; and he had probably communicated both to *Antonin*, when he translated him.

In the After-ages, I see nothing of this Kind can be compar'd to the famous Epigram of *Ausonius* on *Dido*. Every thing quadrates there admirably well ; and it may be too much (u).

The *Italians*.

As to the Epigram, the Moderns don't yield at all to the Ancients ; the *Italians* have Wit, and that is the Fund of that Sort of Poesy. *Sannazar* has made the Eloge of *Venice* in six Lines, which have much the Air of Antiquity ; and which would be perfect, if they had not Fiction for their Basis. The *Venetians* rewarded the Author with Six hundred Crowns of Gold. Here are the six Verses :

*Viderat Hadriacis Venetam Neptunus in undis
Stare urbem, & toto ponere jura mari.*

*Nunc mihi Tarpeias quantumvis, Jupiter, arces
Objice, & illa tui mœnia Martis, ait.*

Si pelago Tiberim præfers, urbem aspice utramque :

Illam homines dices, hanc posuisse Deos.

The *French*, too indolent to undertake Works of long Labour ; and who know better

(t) *Plin. lib. 4. epist. 18.*

(u) *Infelix Dido, nulli bene nupta marito.*

Hoc pereunte fugis ; hoc pereunte, peris.

ter than their Neighbours the Art of Thinking naturally, have made a great number of excellent Epigrams: Those of Mr. *Santeuil* for the Fountains of *Paris*, and of Mr. *le Abbé Regnier* for the *Place de Victoire*, have all the Spirit, all the Elegance, and all the Nobleness which the different Subjects require. Not to speak of *Marot* and of *Gombaud*; *Maynard* is the Man of all the *French* Poets who has compos'd the most Epigrams; and who has best succeeded in giving them the natural and fine Turn, which makes all their Beauty.

What the *Epigram* is among the *Latins*, the *Madrigal*. *Madrigal* is very nigh the same Thing with us. The *Italians*, who are the Inventors of *Italians*. it, have confin'd it to express Tenderneſs; and *Taſſo* and *Guarini* have done a great deal of Honour to their Country on this Head.

The *Spaniards* took this Kind of Poetry *Spaniards*. from the *Italians*: But both one and the other have affected too much Wit; and this Vice has spoil'd their happy and natural Talent.

Melin de St. Gelais, was the first in *France* *French*. who gave the Name of *Madrigal* to this little Poem; and our Poets have extended it to all kinds of Subjects.

Songs also hold of, and are somewhat of Songs. the Nature of the Epigram; and at the same Time have something of the Nature of the Ode, without being precisely either one or the other; 'tis this which distinguishes them from the Verses which the Ancients sung at Table, which were properly little Lyrick Poesies. But Songs have nothing affected as to the Matter, nor for the Turn, which may be infinitely varied. Mr. *de Benſerade* and *de Coulange*, who

had both great Vivacity and Politeness, have compos'd Songs of a simple and easy Turn, where all is New and Original.

Sonnet.

The Sonnet is the Despair of our Poets. A Sonnet without Fault, is worth a long Poem (y). But this Sonnet is yet to be wish'd for. *Joachim de Bellay*, Father of the Cardinal of that Name, taught our Poets to end the Sonnet by a Point; *Maynard* and *Malleville* gave more Dignity to it; *Voiture* and *Benferade* made it receive Sentiments.

Roundel.

The Roundel, originally *French*, don't please but by its Candor. *Marot* first carried the candid Sort to its Perfection. *Bonnefens* subjected this little Poem to the Purity of the Language, which *Marot* had too much neglected. *Voiture* reviv'd the Roundel, which had already fallen; and this delicious Poet added new Graces to it. *Mr. de Benferade*, who succeeded to him, made an ill Choice of his Matter. The Fables of *Ovid* require a continued and supported Style; the Roundel admits only of Jest and Pleasantry.

The Art of P O E S Y.

THERE are good and bad Poets, and every Thing don't equally please even in the finest Poem. It is therefore necessary to distinguish judiciously, and to examine the Works, even of the greatest Masters, according to the Rules of what is *true*, and what is *fine*. These Rules are unchangeable, being founded in Nature; and whatever is

con-

(y) Despreaux Art poetiq. chap. 2.

conform to them must please every where, amongst all Nations, and in all Times. It was necessary therefore, in order to form the Mind with Regard to Poesy, to put Nature in a Method, and to reduce good Sense to Principles.

This is exactly what *Aristotle* pretended to do in his Art of Poetry: He made use of the pure and delicate Taste of the truest and better Sort of the People of *Athens*. That he might find out that which was generally approved of in *Homer*, in *Sophocles*, and in the other Poets; he examin'd and weigh'd the Reasons of the prevailing Taste and Approbation, and run up to the Principles themselves; and of all these Observations, he form'd that admirable Body of Precepts, so necessary and proper for the understanding of the different Characters of Poems, and to lead on to the Perfection of Poesy. *Horace* did the same for the *Romans*, which *Aristotle* had done for the *Greeks*. He abridg'd the Doctrine of the Philosopher, and adapted it to the Understandings of the *Roman* Gentlemen, who at that Time apply'd themselves to Poetry.

There was nothing done of this Kind a good many Ages after; but when the Works of *Aristotle* were brought from *Constantinople* into *Italy*, after the Ruin of the Eastern Empire, there appeared in the 16th Century a number of Grammarians, who wrote long Commentaries upon his Art of Poetry. *Franciscus Robertellus* and *Petrus Vellorius* fell to work first to explain the Text. The first, in the Judgment of *Giraldus* (z), was one of the best Poets of his Time; and *Balzac*, who was not prodigal of his Commendations, speaks well of

F 3

the

(z) De poetis sui temporis.

the Notes and Remarks of the second (a). *Castelvetro* came afterwards; his Vanity, and the high Opinion he had of himself, made him contradict his Author; and that peevish Spirit sought not so much to illustrate the Readings of *Aristotle*, as to obscure the Text of that great Man.

Vida, who was well versed in the *Belles Lettres*, studied to please, without any Thought or Care of Instructing. *Picolomini* translated that same Art of Poetry into *Italian*, and gave great Proof of his Ability, and of his being a good Critick, in the Notes which he wrote along with his Version. *Franciscus Patricius*, *Andreas Gili*, *Riccoboni*, *Minturnus*, and *Vossius*, commented *Aristotle* also at different Times.

But *Patricius* perform'd his Task as a Historian; *Gili* as a Rhetorician; *Riccobini* as a Logician; *Minturnus* as an Orator; and *Vossius* as a Scholiast (b). None of all these Interpreters went far into the Meaning and Spirit of this Philosopher, nor follow'd out his System. With all these Helps *Aristotle's* Art of Poetry would have been very obscure, if Mr. *Dacier* had not brought Order out of the Confusion of the Commentators, and explain'd it in a learned and easy Manner, and without any Vanity. *Julius Scaliger*, one would think, ought not to be left among the Crowd of these Interpreters; his Art of Poetry contains a good deal of Learning, and a well digested Reading; it has been admir'd by the Learned; yet I don't know if he is infallible in all his Decisions.

Poesy

(a) *Lettres à Chapelain*, liv. 3.

(b) *Rapin. præfat. des reflex. sur la poetique.*

Poesy having undergone a Change among the Moderns, particular Rules became necessary for our Rhimes, for the Construction of the Verse, and for certain little Poems unknown to the Ancients. It is with this View, that new Arts of Poetry have been composed. One of the most ancient is that of *Lopez de Vega*; who, to justify the Order and Regulation of his Heroick Poem, and of his Comedies, ventured upon a Method quite different from that of *Aristotle*.

In *France*, Mr. *de la Menardiere*, by the express Order of Cardinal *Richelieu*, undertook a great Work upon the Art of Poetry; but he executed only a Part of the Plan which he had laid down; for that which he published in 1640 regarded only Tragedy and Elegy. Mr. *L'Abbé D'Aubignac* confin'd himself also to the Dramatick Poem, with Regard to the Practice of the Stage. But Mr. *Despreaux* had a much more comprehensive Design. Never did any so small a Work contain so many excellent Things as his Art of Poetry, which, founded on the Maxims of *Aristotle* and *Horace*, is perfectly adapted for our Use at present. 'Tis, without doubt, to him that we owe that good Taste, and that Justness in judging of Poetry, which is remarkable among the most Part of those who have had any Education.

E L O Q U E N C E.

ELOQUENCE is the Art of Persuading ; by which one makes himself Master of the Spirit and Reason of another. This Art, to take it in all its Extent, is almost as ancient as the Use of Speech ; for Eloquence mov'd Men to live in Society ; to assist and instruct one another mutually ; to submit to Laws ; and seriously to consider and regulate the Affairs they had in common together. Whence 'tis plain there must be two Sorts of Eloquence ; the one more simple, suited to familiar Intercourse or Conversation, and to the ordinary Dealings and Commerce of the World ; the other of a higher Nature, and more proper for Discourses and Harangues in Publick (c), and upon solemn Occasions. 'Tis this second Kind, which is properly call'd Eloquence, and which makes the Subject of this Article.

Eloquence has always flourished amongst a free People. *Greece* was remarkable for it, before it was over-run by *Alexander*, his Descendants and Captains ; as was *Rome*, before the Domination of the *Cæsars*. But it was but little known among the *Assyrians* and *Persians*, who were always under despotick Government ; and it is observed of the *Egyptians*, that, to evite the Consequence of a false Eloquence, they rejected the True (d).

On the contrary, among the *Greeks*, who had all of them a Share in the Government,
To

(c) Cic. off. l. 1. c. 37. l. 2. c. 14.

(d) Bossuet. disc. sur l'hist universelle, part 3. art. 3.

To speak well, was the Way to raise them to Honour and Riches. Therefore it is no wonder that Eloquence was so much studied in *Greece*, nor that *Greece* abounded with Men so much famous for it. For since Eloquence was the Means of raising the most private Man to the most shining Figure, every private Man who had any Ambition, and considered himself as the Maker of his own Fortune, and that he might possibly raise himself to some high degree in the State, it is to be presum'd, would use his utmost Endeavours, and take the most likely Way to come at it; and there is no Way more likely than Eloquence in a popular Government.

But it was principally at *Athens*, that it shined with the greatest Brightness.

Pericles, through an immoderate Ambition of sovereign Power, thundered, bore down all before him, and put all *Greece* in a Commotion. He was the most eloquent Man of his Age. It was commonly said, that the Goddess of *Persuasion* sat upon his Lips; and that even when he had the worst of the Contestation, he persuaded the Audience, contrary to their Senses and Sentiments, that he had carried the Victory against his Adversary.

The Power of the Eloquence of *Pericles* lay in the Strength of his Thoughts, and in a lively, close, and extremely concise Turn of Expression. *Alcibiades* and *Thucydides* (e) followed him in that. There was more Thought than Words in their Speeches. *Lyfias* appeared afterwards; he had the Force of *Pericles*, but was not so concise. *Isocrates* charm'd the *Athenians* by his round Periods and Cadence, and began to make them sensible of that sweet Harmony

(e) It is not the Historian,

mony which ravishes the Audience. Every Orator has a distinguishing Character of his own. *Plato*, in the *Apology of Socrates*, display'd an Elegance and Sublimity of Style, supported with great Solidity of Judgment. *Hyperides* had a most singular Talent for painting the Manners, and affecting his Hearers (f). He was Cotemporary with *Demosthenes*, surpass'd him in Elevation of Genius, and by the Vehemence of his Eloquence. This last is sometimes so concise, and so nervous, that there is nothing to be found in his Harangues either too much or too little. That which distinguishes him is the Violence of the Emotions he excites. 'Tis the Rapidity of his Course, by which he bears down and carries all before him : And, to sum up his *Eloge* in one Word, his Oration for *Ctesiphon* answers to the Idea one ought to have of perfect Eloquence. In this Cause, he had *Æschines* not so much his Rival, as Enemy ; more copious indeed, and ornamented, but not so vehement, and to whom Nature had supply'd what he wanted of Art and Study.

Lycurgus, *Dinarchus*, and *Demades* liv'd at the same time ; for the Age of *Demosthenes* was that of Eloquence (g). Tho' they had not all the same Genius, they agreed in the Taste of the *True* and *Simple* ; and equally avoided all Excess and Affectation. After the Death of these great Orators, Eloquence took insensibly another Turn ; something, one can't say what, soft and effeminate succeeded to that natural Air and Beauty of Eloquence without Disguise : A florid, ornamented, and wanton Style took place of the masculine, grave and austere ; as if it had been necessary to say something to divert,

(f) Longinus of the *Sublime*, ch. 8.

(g) He flourished in the time of Philip and Alexander.

vert, when they could say nothing to move and persuade the Audience. *Demochares*, Nephew of *Demosthenes*, was the first Cause of this Evil; and *Demetrius Phaleræus* took to the same way. As *Demetrius* excell'd all of his Time in Politeness, it was easy for him to prescribe and set the Example, and he was as readily followed; so he open'd a new Way, where he lov'd rather to march at the head of his new Disciples, than to tread in the Steps of his old Masters (b).

The Declamations, that is, Discourses of pure Ostentation, which Masters took in their heads at that time to introduce into the Schools, contributed very much to enervate the Genius. But when Eloquence went out of *Athens*, and pass'd over into *Asia*, it lost very soon that Justness, which allows of nothing extravagant nor useless; and being spoiled by the *Asiatick* Vanity and Bombast, it fell from being perfect, into the indifferent middle sort, and from that into the most faulty (i).

These different Ages of the *Greek* Eloquence, The *Romans* are to be found again in the *Roman*. In the first *Africanus* there is to be observ'd an Air of Greatness, which struck all at once, and procured him Respect; and a natural Air, which inspired Confidence; Talents which he knew how to make use of, and which serv'd him to good purpose, when he receiv'd the Deputies of the People of *Spain* (k), and in that famous Conference which he had with *Asdrubal*, at *Syphax's* Palace in *Numidia* (l). With what Authority does *Scipio* speak to his Soldiers,

(b) Cicero de Orat. l. 12. c. 10.

(i) Quintil. Inst. Orat. l. 12. c. 10.

(k) Liv. Decad. 3. l. 6.

(l) Decad. 3. l. 8.

Soldiers, to appease their Sedition (m)! and with what Liberty does he reprove *Masinissa* on the account of *Sophonisba* (n)! The Eloquence of the *Gracchi* was always conform to their Character; it was vehement, and fit for bringing over the Audience to the Designs of the Orator.

In these ancient times, the *Romans* had no Art nor Method, but spoke as Nature and Genius prompted; but afterwards being taught by the *Greeks*, they carried the Art of Speaking to the highest Point of Perfection (o).

Crassus (p), *Antonius* (q), *Cæsar* (r), and the two *Catuli* (s), acquired great Glory. They were all great Orators, but had different Turns of Eloquence. *Crassus* was rich and fluent in his Speeches, and wanted not his Jest and Gayety. The extemporary Harangues of *Antony* were as regular, as if they had been long thought of and prepared (t).

The two *Catuli* spoke the Language so purely, that they seem'd to be the only Persons who could speak *Latin* (u).

Cæsar spoke with great Spirit, and in an agreeable Manner; he could be pleasant upon a serious Subject, and had the Art of being sweet when he talk'd of melancholy Matters.

Sulpitius and *Cotta* were inferior in Age to these Orators, but of equal Merit. They made themselves admir'd; the one by the Force of his

(m) Ibid.

(n) Decad. 3. l. 10.

(o) Cic. de Orat. l. 1. n. 14, 15.

(p) Lucius Crassus.

(q) Mark Anthony, the Grandfather of the Triumvir.

(r) It is not he who overturn'd the Republick.

(s) The Father and the Son.

(t) Cic. in Brut.

(u) Cic. Orat. l. 3. Offic. l. 1. cap 37.

his Pleadings, the other by the easy Graces which were scattered all over his (x).

Cicero, in his Youth, preferred the Manner of *Sulpitius*, and form'd himself upon that Model, which, with a close Application to that Study, shew'd to what Point he would carry the Art of Speaking one Day. He began to make himself known by his Oration for *Roscius*; and that which a long time after he made for *Milo*, is the most perfect Piece which came from the *Roman Bar*. As *Demosthenes* brought Eloquence to Perfection among the *Greeks*, so did *Cicero* among the *Romans*; and these two great Men arrived at the same End by opposite Ways. The one is short and concise, the other ample and exundant. The first holds his Adversary close, and presses him by the Vivacity of his Style; the second, that he may fight with Advantage, manages his Forces, and bears down and oppresses his Enemy at last by the Solidity and Weight of his Discourse. You can abridge nothing of the first, and you can add nothing to the last. *Demosthenes* has more Art, *Cicero* more Genius; the one stuns the Audience, the other touches it; the first forces you to yield, you love to surrender to the second. Without pretending to determine the Preference between these two Orators, one may say, that the Advantage which *Cicero* seems to have over *Demosthenes* may be reduc'd to this, that *Cicero* was a Master of fine Rallery, could give an Air of Importance to the most ordinary things, and embellish those which are the least susceptible of Ornament (y).

About

(x) Cic. in Brut

(y) Quintil. Inst. Orat. l. 10. cap. 1. & Longin. Subl. c. 10.

About the same time there were some other famous Orators; as *Celius*, *Calvus*, *Brutus*, *Asinius*, and *Corvinus*. *Celius* favours too much of Antiquity, says the *Perrault* of his Age, in the famous Dialogue on the Orators. In my Opinion, nothing can recommend *Celius* more; for it must be observ'd, that *Aper*, the Adorer of the Moderns, sets the Reign of *Vespasian*, in this Passage, in opposition to the End of the Republick, and to the Beginning of the Reign of *Augustus*. From the Reproaches which pass'd between *Cicero* and *Calvus*, 'tis easy to infer, that *Calvus* had not so much Force and Vigour as his Rival,

As for *Brutus*, his Philosophy marr'd his Eloquence a little. It kept him always too close to the solid.

Asinius and *Corvinus* had a great deal of Force in their Harangues; they are look'd upon as the last of the *Romans*, who deserv'd the Title of Orators.

After them, there were many great and learned Pleaders at *Rome*, but none of 'em truly eloquent. Under *Tiberius* and his Successors, the Corruption of Manners infected the Genius; the Love of Pleasure gave an Aversion to Study, and bad Education substituted a false, in the room of true Eloquence. To which the Sophists, whose Lives *Philostratus* and *Eunapius* have written, contributed not a little by their Declamations.

Seneca spoil'd the Taste entirely by his quaint Thoughts. He had a great Name, was a Man of Fashion, which entitled him, in some measure, to introduce his bold Novelties. He brought in vogue a short and quick way of expressing one's self, not by connected Discourse. His Turns were ingenious rather than natural;
his

his Style sententious and full of little Niceties and Witticisms void of Judgment; his Discourse starting and violent, his Paintings often imperfect, always false, a great deal of Subtilty, little Delicacy either in Thought or Expression.

Seneca communicated his Faults to his Imitators, without sharing with them any of the good Qualities he might have had; for he was as much superior to these Copiers, as he himself was inferior to the Ancients.

The most part of Men have in themselves the primitive Ideas of good Taste. They want only to awaken them, and to extricate them from Confusion.

Quintilian was very sensible of the Depravity and Corruption of this new kind of Eloquence; but being unable to extirpate it, he stood up against the Abuse was made of it; he was at the pains to acquaint his Disciples with the Ancients, the true Sources of Eloquence.

Pliny's Panegyrick gives us the Image of Eloquence as it appear'd at that time: It surprizes with its Splendor, but it offends and dazzles. I should like the Piece better, did it shine less and more agreeably. In short, it is a labour'd Performance, but tiresome.

Notwithstanding the Endeavours, under the Reign of *Trajan*, to support the Reputation of Eloquence, it dwindled, and grew worse under the succeeding Emperors. The different Degrees of the Depravation of Taste is very perceivable in the Harangues of *Mamertinus*, *Eumenes*, *Nazairus*, *Pacatus*, *Cassiodorus*, and a great many others. And this Study and Enquiry might be of good use, was it made to purpose.

When the Spirits which had slept so long, and Learning began to awake in *Italy* and *Spain*, there

there were some Historians and Poets to be seen, but no Orators; and I even doubt, if ever there have been Orators among them.

The *Italians* think too prettily and merrily. Eloquence requires Simplicity.

The *Spaniards* over-stretch, and run out into Extravagance. Eloquence admits nothing but what's natural.

In *France*, the Art of Speaking was very soon infected with the Disease and Faults of our Neighbours. It continued childish and rude for a long time. Its Improvement is owing to the *French Academy*. 'Twas *Balzac* and *Voiture*, who, by purging our Language, made Eloquence recover from its weak Estate. They had a great deal of Spirit, says a famous Academician (z), but nothing more opposite than their Characters: The one always carried to the Sublime, the other always to the Delicate and Tender: The one studied to be admir'd, the other to make himself belov'd. Their Faults have pass'd a long time for good Qualities. Now-a-days we are shock'd at the Hyperboles of *Balzac*, and could wish that *Voiture* had written with greater Purity, and that he had put fewer pretty little Conceits in his *Alcidalis*.

(z) Mr. L'Abbé Olivet, Hist. de l'Acad. Franc. t. 2.

E L O

E L O Q U E N C E *of the*
F R E N C H B A R.

WE have not the same Reason to talk of our Bar, which the *Greeks* and *Romans* had; for I doubt if the Eloquence of the *French* Bar can go farther back than the middle of the 16th Century. The Epoch is from *Jean Baptiste de Mesnil*, Advocate of the Parliament of *Paris*, afterwards Advocate-General, the first who introduced the Custom of making Harangues at the opening of the Parliament (a).

A little time after, *Jacques Mangot* followed the same way, and mounted to the same Dignity: He had a sound Judgment, clear Thought, and a neat Expression, without Disguise or Affectation (b). *Paguier* (c) only thinks him too ample and prolix.

To *Mangot* succeeded *Simon Marion*, who flourished in the times of *Henry III.* and *IV.* In the following Reign, *Guillaume de Vair* gave a new Lustre to Eloquence. Before this Magistrate, the Pleadings were so overloaded with Citations, that one could not see the Ground of the Cause; and this was thought to add to their Eloquence: A Fault which *Mr. Briffon*, a Man otherwise esteemable, had introduced. *Mr. Du Vair* understood, that, according to the Example of the Ancients, who never or very seldom made Citations, one ought to speak as depending upon no Authority, but the
G Strength

(a) *He died* Anno 1569.

(b) *Mr. du Vair*, de l'Eloquence Françoise, liv. 2.

(c) *Recherches*, liv. 4. ch. 17.

Strength of his own Reason, as they did ; but that the Orator might make use of the Thoughts of Authors, without stuffing their Pleadings with their very Words and Places whence they took them (*d.*).

The too frequent Allusions to Passages of Antiquity, which were not so well known ; and the continual Metaphors which threw a great deal of Obscurity upon the Discourse, wanted also to be reformed. The Advocates who made use of them, thought to make themselves esteem'd, and remarkable for their Erudition, and fancied the Sublime to consist in this Allegorick Style. To this they added the playing upon Words, and nice Antitheses. The Orators delighted in these things, and thought them Flowers of Eloquence.

Monf. *Le Maitre* guarded against all these Faults, and his first Appearances presaged happy Consequences for Eloquence, if he had not preferred the sweet Satisfaction of a Religious Solitude, to the vain Charms of a perishing Fame. The famous *Jerome Bignon* afterwards illustrated the Bar by a prodigious Extent of Knowledge. He knew almost every thing that *Cicero* requires in an Orator. After this great Magistrate, but in a Post not so high, Mr. *Patru* was one of the most eloquent Men of his Age. He was not vehement when he spoke, but by polishing over and over the Pleadings which he has published, he has made the Style of 'em less strong, less easy, and not so much like that of an Orator, as it was then when he pronounced them (*f*). He was the first

(*d*) Mr. Perrault. *Eloges des Hommes illustres*, tom. 1.

(*e*) *De Oratore*, l. 2.

(*f*) *Lettres de Mr. Maucroix*.

first who made an Address of Thanks to the *French Academy*, when he was receiv'd a Member; and his Discourse took so well, that the Society order'd, that all who should be received afterwards should follow the Example.

Certainly these great Men would have rais'd themselves to the highest pitch of Eloquence, if the Eloquence of the *French Bar* had been capable of it; for the Practice of the Bar, which is so hard and puzzling in its several Parts, must exhaust a good deal of Spirits. How should the Time they have bestow'd on the Knowledge of the Laws, Customs and Ordinances, be redeemed and recompens'd by the Study of Eloquence? Could they even have time to form their Pronunciation, which the Ancients call the Eloquence of the Body, and without which there is no perfect Orator? In short, the Subjects they treat are so common, and sometimes so low, that they rarely admit of great Movement, and violent Passions.

The E L O Q U E N C E *of the*
P U L P I T.

E L O Q U E N C E seems to have repair'd by the Pulpit the Loss it made at the Bar. The Truths which the Christian Orators teach are so sublime; the Mysteries they declare are so venerable; they speak with so great Authority, that they are easily acknowledged to be the only Trustees of the true Eloquence; that Eloquence, I say, which is independent in its own Nature, Mistress of Hearts, which em-

The
Greek Fa-
thers.

plays the most powerful Means and brightest Figures to move them. This Eloquence shines in the sacred Books, and chiefly in the Writings of the Prophets. In general, the Prophets have all of them a certain Greatness; but if you attend to their different Characters, you shall find *Ezay* elevated, *Jeremy* pathetick, *Ezekiel* terrible, *Daniel* tender. 'Tis from these Fountains so pure, that the Holy Fathers have suck'd their Eloquence; for what was wanting to *St. Basil* and *St. Chrysostom*, to make them truly eloquent, but a Diction as elegant as that of *Demosthenes*? They knew how to make choice of the strongest Proofs, and to range 'em aright. They suited their Discourses to the Capacity of their Audience; and, in proportion to their Necessities, they employ'd sometimes lively Images, and suitable Figures; they understood how to convince, to move, to terrify, and to render themselves amiable. Moreover, if their Elocution has not that Turn of Delicacy, that Exactness to be wish'd for, it ought to be considered, that the Fathers were Pastors very much occupied; who, without Preparation, spoke familiarly, and sought only to instruct, whether by explaining the Scriptures in Order, or by chusing the most important Subjects.

The La-
tin Fa-
thers.

The *Latin* Fathers followed the same Method. *St. Cyprian*, *St. Leon*, *St. Ambrose*, are justly reckoned the most eloquent. They are remarkable for a great deal of Art and Nobleness. The Sermons of *St. Augustine* are in a more simple Style; for he preach'd in a little Town to Husbandmen and Merchants; beside, the Deluge of the Barbarians had at that time altered the Taste, and the Contagion made such Progress,

Progress, as quite extinguished Eloquence in the West.

After some Ages, the Arts were reviv'd ; but Eloquence shone only with false Light. We hardly find three Orators in the Space of two hundred Years. *Savonarola* at *Florence*, *Philippi de Narni* at *Rome*, and *Lewis de Granade* at *Seville* ; and they ow'd their Success less to the Justness of their Discourses, than to a certain pathetick Air, which made their Audience tremble.

In *France*, three great Faults infected the Pulpit for a long time, viz. No Order in the Design, a great Ostentation of profane Learning, and low Witticisms, which they thought necessary to procure Attention. *Pere Senault*, of the Oratory, substituted an exact Method in place of those Disorders, viz. The Doctrine of the Scriptures, and Tradition, and a Gravity fit to make the Ministry of the Word respected (g). He was admir'd for that Perspicuity and Neatness of Style, which made the most simple and ignorant conceive the most sublime and mysterious Truths. *Pere Lingendes*, his Rival for Oratory, excell'd in the Pathetick ; both of 'em made excellent Scholars, who made a greater Progress than their Masters. From the School of the first, came the Fathers *Le Baux*, *Mascardon*, *Soanen*, *Hubert*, *La Roche*, and a great many others.

At the same time two great Orators appear'd, but of a different Character.

Allow me here to make use of the Words of an able Critick, in their Commendation. " That which reigns in *Mr. Flebier*, says *Mr. Rollin* (h), is a Purity of Language, an

G 3

" Ele-

(g) *M. Perrault*, *Eloges des Hommes illustres*, Tom. 1.

(h) *Maniere d'Enseigner & Etudier les Belles Lettres*. &c. Liv. 3. ch. 2. Art. 2.

“ Elegance of Style, a Richness of brilliant
 “ and florid Expressions, a great Beauty of
 “ Thought, a sage Vivacity of Imagination ;
 “ and, which is the Consequence of it, a
 “ wonderful Art of painting Objects, and as
 “ it were of making them sensible and palpable.
 “ Mr. *Bossuet*, on the contrary, little mindful
 “ of the light Graces of Discourse, and some-
 “ times even neglecting the straitening Rules
 “ of the Purity of Language, tends to the
 “ Great, to the Sublime, and to the Pathetick.
 “ It is true, he is not so equal, does not su-
 “ stain himself so well ; but, in recompence,
 “ he carries, he ravishes, and transports.”

Here is another kind of Eloquence which has
 its own Merit. *Pere Bourdaloue* made it his Bu-
 siness to set Reason in its true Light. He
 first laid down his Principles ; and, after having
 proved them, and deduced a general Proposi-
 tion, he descended into a Detail, where all the
 Conditions of Man were naturally represented.

It is more easy to form Images, than to fol-
 low a Course of Reasoning : The young Preach-
 ers, whose Imaginations are brisk and prevalent,
 imitated that which the Method of *Pere Bour-*
daloue offer'd them as most easy, and they mul-
 tiplied their Pictures infinitely : The wiser Sort
 did not allow themselves to be led by that Ex-
 ample ; they put a stop to that growing Fault,
 and being persuaded, that, in order to move
 and affect, one must go straight to the Heart,
 they took care to lay aside all foreign Orna-
 ments ; and studied only to make use of the
 strongest Reasons, in order to persuade ; and
 the most powerful Motives, in order to touch
 and affect.

The Art of RHETORICK.

PRECEPTS, says *Cicero* (i), have not made Men Eloquent ; but eloquent Men have given occasion to Precepts, by the Observations which have been made on their Discourses. The Body of these Observations carefully reduc'd, and united under certain Heads, is call'd *Rhetorick* : The Origin of this Art must be refer'd to the *Greeks*.

Isocrates and *Isæus* open'd their School at *Athens*, and made excellent Scholars. We learn from *Plutarch*, that *Isocrates* and one call'd *Alcidamas*, had compos'd some Books of *Rhetorick* (k) : These Books have not come down to us ; and *Plato* is the first, who has left us in his *Phædrus* some general Rules on Eloquence. *Aristotle* afterwards compos'd his Books of *Rhetorick* according to the Principles of *Plato* ; without tying himself to the Method of his Master, he prefer'd the Method of the Geometricians to that of the Orators, which *Plato* had follow'd. *Demetrius Phaleræus*, *Hermogenes*, *Dionysius Halicarnassæus*, and *Longinus*, who appear'd at different times, confin'd themselves to Elocution : But *Demetrius* touch'd nothing of it but the Delicacy ; *Hermogenes*, the different Characters ; *Dionysius*, the Ornaments, and *Longinus* the Sublimity (i). *Longinus* made a Treatise of the Passions,

Of the
Greeks.

G 4

which

(i) Orat. l. i. n. 146.

(k) *Isocrates* was born, according to *Petavius*, An. M. 3548. *Isæus* and *Plato* were his Cotemporaries.

(l) *Rapin* Compar. de Cic. & Demosth.

which we have lost; and, in the Judgment of the Criticks, he surpasses all the Rhetoricians, for good Sense, Erudition, and Eloquence.

Of the
Romans

They were the *Greeks*, who taught Rhetorick at *Rome* in its first Ages, and they did it in their own Language. *Plotius*, originally of *Gaul*, was the first who chang'd this Custom, and gave his Lessons in *Latin*: He liv'd in *Cicero's* time. His School was much frequented; and after some Trouble and Contradiction he met with from the Censors, his Manner was approv'd by publick Authority (*m*). *Cicero*, in his Youth, had written some Tracts of Rhetorick; but having afterwards come to great Reputation for Eloquence, he undertook to revise those Subjects, at the Desire of his Brother *Quintus*, and to treat of them more politely, and with more Art (*n*), which he did in his three Books *Of the Orator*, an admirable Work; where the Dryness of the Precepts is mix'd with all that is agreeable of the *Roman* Urbanity.

Rhetorick, an honourable Profession, and at first exercis'd by able Orators, became a venal Profession under the Reign of *Vespasian*, who appointed Wages for those who taught Eloquence (*o*). *Quintilian* was the first who receiv'd them. After he taught the *Roman* Youth for Twenty Years, he compos'd his *Institutions*; in which, beginning from the Cradle with the Orator he designs to form, he conducts him through the different Degrees, to the highest Point of Eloquence. The

(*m*) *Suetonius de claris Rhetoribus.*

(*n*) *Orat. l. i. n. 5.*

(*o*) *act on. l. 8. c. 18.*

The Moderns have copy'd after *Cicero*, as their Author; and he has furnish'd to *Cavalcanti*, to *Barthius*, to *Soares*, and to *Vossius* and many others, all the Precepts and Learning with which they have enrich'd their Books of Rhetorick. This Method is the most easy; but I doubt if it be the most judicious. Why? Because the Rules of the Art of Oratory are founded in Nature, and are the same among all Nations, and in all Ages; and that it is needless to labour on a Subject which has been exhausted by the Ancients: They ought therefore to have lay'd aside the Precepts concerning *Invention* and *Disposition*, so universally known; and to have restricted themselves to *Elocution* alone, which varies according to the different Genius of the Languages. It's upon this Plan that Mr. *Patru* ought to have dress'd his Rhetorick: He should have decided, according to the Measure of our Periods, and the Figures which are peculiar to the *French* Diction. This was a Project worthy of a Man who spoke his own Language so well. It is to be wish'd, some learn'd Man would discharge Mr. *Patru* of his Promise, and indemnify the Loss of the Publick, by its losing so sufficient an Academician.

HISTORY.

HISTORY preserves the Memory of great Events. These Events may be transmitted to Posterity two Ways ; either by publick Monuments, or by Writing : Of these Two, the First is the most simple, and the most natural, and consequently the most ancient : Therefore we find it made use of among all Nations.

Historical
Monu-
ments.

Altars
and
Temples.

Feasts.

Trophies.

These Monuments are of several kinds. I put *Altars* and *Temples* in the first Rank : So the Altars which *Abraham* built at *Sichem*, and near the Valley of *Mamre*, were a Proof to his Posterity of the Promises which God had made to this holy Patriarch, in two diverse Apparitions (*p*). So the Temple of *Jupiter Feretrius* recall'd to remembrance the Victory of *Romulus* over the *Ceninenfes* ; and that which the Consul *Attilius* rais'd to *Jupiter Stator*, was an illustrious Monument of the Defeat of the *Samnites* near *Luceria* (*q*). The Feasts had a Tendency to the same end. The Passover, for Example, made the *Israelites* remember their Coming out of *Egypt*. The *Capitoline* Plays had been instituted in memory of the Delivery of the *Capitol*, when besieged by the *Gauls*, *Ann. Rom.* 364 (*r*).

I put *Trophies* in the third Class. They were Pillars, which perpetuated the Memory of Conquests : Of this kind are the Pillars of

(*p*) Gen. c. 12. v. 7. c. 13. v. 18.

(*q*) *Liw.* Decad. 1. l. 1. & 10.

(*r*) Decad. 1. l. 5.

of *Hercules*, and those of *Sesostris*, King of *Egypt*.

The *Greeks*, as *Thucydides* tells (*s*), engrav'd the Treaties of Peace and Alliance on Pillars.

The Ancients gave new Names to Places; and they gave Surnames to great Men; it was, to ascertain the most famous Facts. Hence is known the Origin of *Seleucia*, *Antioch*, *Apamea*, and *Stratonica*.

This Custom pass'd from the *Greeks* to the *Romans*, who often mark'd the Epoch of the Establishment of their Colonies, by the Names which they impos'd on the Towns (*t*). At *Rome* itself, there was to be seen in its third Region, the *Sororium Tigillum*; that is, the Yoke under which the last and surviving *Horatius* expiated the Murder of his Sister; and also in the second Region, the Quarter of the *Albans*; that is, that Part of the Town whither they were transported after their own Town was demolish'd. As for the Surnames of the *Romans*, they very often related to some Victory, of which they were the Recompence. Thence the Surnames of *Africanus*, *Asiaticus*, *Achaicus*, *Numidicus*, given to the *Scipio's*, to *Mummius* and *Metellus*, in memory of the Ruin of *Carthage*, of the Defeat of King *Antiochus*, and of the Victories over *Jugurtha*. To go farther back; *Cn. Martius* took the Surname of *Coriolanus*, from the taking of *Corioli*, a Town of the *Volsci*; *C. Manlius* took that of *Capitolinus*, from the Defence of the *Capitol*; and *M. Manlius* was fir-

(*s*) *Histor.* l. 5.

(*t*) *Aquæ Sextiæ*, *Colonia Agrippina*, *Cæsarea Augusta*.

firmam'd *Torquatus*, from a Collar which he took from a *Gaul* in a single Combat.

I pass over a great many other Examples, that I may come to the last kind of historical Monuments, which is neither less ancient, nor of less Extent; and that is, Verses put in a Song. Those who are vers'd in History, know, that in all Ages the Memory of great Affairs was preserv'd by Songs. The *Hebrews* and *Greeks* made use of the Lyrick Poesy for this purpose. *Carmenta* in *Latium*, as *Dionysius* of *Halicarnassus* reports, compos'd Hymns to the Praise of Illustrious Men. *Cæsar* (u) observes, that among the *Gauls*, the *Druids* or Masters made the Youth, who were under their Care, learn by heart a great Number of Verses. According to *Tacitus*, the *Germans* sang the Exploits of *Arminius*: *Simler* says, that the ancient *Swiss* preserv'd by their Songs the Memory of the Victories which they had obtain'd. And it is observ'd, that that Custom remains at present in the North of *Europe*, and in a Part of *America*.

Thus we see, that the Memory of great Actions was perpetuated, before the Use of Letters. After the Invention of Writing, polite Nations made use of it to fix Facts; and they began to write Annals or Histories.

The *Hebrews* are always first in Date for the Arts; and it is among them also, that we find the most ancient Historians. Some Authors (x) make *Moses* Cotemporary with
Inachus

(u) Bell. Gall. lib. 6. cap. 2.

(x) St. Justin, Athenagoras, Tatian, Josephus, Porphyry.

Inachus (y); others place him only in the Time of *Cecrops* (z), according to the Calculation of *Eusebius*: But whatever Date be assign'd him, it's plain he preceded all the Fables of the *Greeks*. He compris'd in the *Pentateuch* the History of the *Israelites*, from the Creation of the World to their Establishment in the Land of Promise, which comprehends the Space of about 2500 Years. This History was afterwards continu'd, by the Order of *Joshua* and his Successors: For it was not permitted, that any body, at his own Pleasure, should take upon him the Quality of an Historian: None but the Priests were allow'd to write History; and History bore the Character of its Authors, who were wise, and serious grave Men; old Men, of great Experience, and well inform'd and instructed in Business.

It was just so with the *Phœnicians*, the *Chaldeans*, and the *Egyptians*. Their Priests being separated from the World, confin'd themselves to the Service of God, to the Study of Philosophy, and the Reduction of Facts into the Form of History. And, to begin with the *Phœnicians*, *Porphry* (a) tells us, that *Sanchoiathon* made up his Annals, partly from the Memoirs which were kept in the Temples, and which were communicated to him by *Jerombala*. These Annals of *Sanchoiathon*, written in the *Tyrian* Language about the Time of the *Trojan* War, were translated into *Greek* by *Philon de Biblos*, under the Empire of *Adrian*. Neither the Original, nor the Version is now extant, except

(y) 675 Years before the War of Troy.

(z) 275 Years before the War of Troy.

(a) In *Euseb. præp. Evang.* l. 10. c. 3.

except some few Fragments, which we read in *Eusebius*.

Chaldeans. As to the History of the *Chaldeans*, we know nothing of it more ancient, than that which *Berosus* address'd to *Antiochus Soter*, King of *Syria*. This *Berosus* was a Priest of *Belus*, according to the Testimony of *Tatian*; and his Work contain'd the History of 480 Years, from the Beginning of the *Æra* of *Nabonassar*, down to his own Time. I say nothing of the *Assyriacks* of *Abydenus*, and of *Nicolas* of *Damascus*. The Age of the First is not known, the other liv'd very late, under the Reign of *Herod* the Great, King of *Judæa*; both of 'em had extracted from the same Originals; I mean, the Annals of the Pontiffs.

Egyptians. It is probable enough, that the two *Macarius's*, Authors of all the Institutions of the *Egyptians*, had not neglected their History; At least, it is certain, that the collecting of Facts was among them the principal Occupation of the Priests. They retain'd that Custom, after they had lost their ancient Manners; and it was *Manethon*, an *Egyptian* Priest, who in the time of *Ptolemy Philadelphus*, put the History of his Country in *Greek*, and which he carry'd as far down as the 16th Year of *Artaxerxes Ochus*, King of *Persia*, the 2d of the 107th Olympiad.

Josephus, *Eusebius*, and *Georgius Syncellus*, have preserv'd to us some Fragments of these Authors, which they had intire in those Days, the Loss of which we cannot regret enough: For in an Age so clear-sighted as this of ours, 'twould be in vain to stand up for the Imposture of the famous *Annius* of *Viterbo*, who about the Middle of the Fifteenth

Cen-

Century pretended to revive both *Manethon* and *Berosus*. This Cheat, which formerly deceiv'd some Learned Men, could impose upon no body now-a-days, but upon those, who might imagine that the Honour of a certain venerable Order of the Church was concern'd, and therefore oblig'd to espouse the Cause, and defend the Monk of *Viterbo* (b).

The *Phœnicians* and *Egyptians* brought the Use of Letrers into *Greece*, and gave that Nation a Taste for History. The *Greeks* left the Care of it to their Poets, whom they look'd upon as the inspir'd Prophets of the Gods, and as the Ministers of their Religion; of the Number of whom were *Sisyphus* of *Coos*, *Corynnus*, *Dares Phrygius*, and *Dic-tys Cretensis*. They flourish'd in the Time of the *Trojan War*; and their Writings serv'd afterwards as a Foundation for the *Iliad* and *Odyssey*. Let us lay aside Prejudices. *Homer* in his Poems did not write Romances invented according to his Fancy and Pleasure; he conform'd his Narrations to the publickly receiv'd Accounts and vouch'd Evidence, and follow'd a Tradition as yet perfectly fresh.

At length, the Fables which Antiquity had consecrated, were abandon'd to Poesy; and the Truth, which was veil'd over by those ingenious Fictions, was discover'd, and stript of these Coverings and strange Ornaments, and made to appear naked, by the finest Writers, in a continu'd Discourse.

The first, who, according to *Strabo* (c), wrote in Prose, were *Cadmus* of *Miletus*, *Pherecydes*, and *Hecataeus*. These, by keep-
ing

(b) *Vossius* de Hist. Græc. lib. 1. cap. 1. 13, 14.

(c) *Geogr.* Lib. 1.

ing to the Poetical Turn, retrench'd only the Measure of Verse. The Criticks make them cotemporary with *Cyrus*. *Acusilaus* and *Hellanicus* came after; these Historians, nothing solicitous to adorn their Style, thought all its Merit consisted in being short and clear. They contented themselves, by leaving behind them Memoirs of Times, Places, Persons, and their Actions. *Herodote* wrote History with Elegance. *Thucydides* excell'd all who had gone before him, in Nobleness of Style. *Xenophon* the *Athenian*, and *Philistus* of *Syracuse*, form'd themselves from those two great Models. *Ephorus* and *Theopompus* appear'd much about the same time; who being educated in the School of *Isocrates*, made the Eloquence of their Master shine in their History: The Opposition of their Characters made it be said of them, That the one had need of a Spur, the other of a Curb. They liv'd in the Reign of *Philip*, King of *Macedon*. *Callisthenes*, Disciple of *Aristotle*, and Companion of the Travels of *Alexander*, wrote the Life of that Prince, not so much like an Historian, as an Orator. *Timæus*, the *Sicilian*, Cotemporary of *Agathocles*, made his Works admir'd for the Abundance of the Matter, the Variety of Thoughts, and the Purity of Expression (*d*). After *Timæus*, History declin'd among the *Greeks*. You may see elsewhere, what one ought to think of these Historians (*e*). Let us pass on to the *Romans*; and let us endeavour to mark, what was the Birth of History

(*d*) *Cic.* Orat. l. 2. n. 53. 56, 57, &c. *Vossius*, Hist. Græc. lib. 1. c. 12. lib. 4. cap. 1, 2, 3, 4.

(*e*) *Princ. de l'Hist.* Part 3.

History among them, the Date of its Perfection, and of the Beginning of its Decline.

Among the *Romans*, History was nothing *Romans*. else at first, but simple Annals. The High Priest, in order to preserve the Memory of Facts, reduced into Tables the most remarkable Things that pass'd every Year, and expos'd them in his House, that the People might have the Opportunity of consulting them. This Usage, as ancient as *Rome* itself, lasted even to the Pontificate of *Publius Mucius*; and these Tables were call'd the *Great Annals* (f), a Name which they had in all Ages. Notwithstanding these wise Precautions, History receiv'd a great Shock at the time of the Burning of *Rome* by the *Gauls*, *An.* 366. from its Foundation. The Annals of the Pontiffs perish'd at this sad Conjunction; and this Loss has made some learned Men suspect every thing that is found in the *Roman* History prior to this Date. *Titus Livius* informs us of this Event; and his Testimony is of great weight: But as *Vossius* has remark'd (g), while *Livy* says, that the most Part of the publick Monuments perish'd at that Occasion (h), he seems plainly to hint, that a Part escap'd the Flames. Moreover, amongst all Nations, every Town had its particular Annals; and the Towns of *Italy*, whose Affairs were mix'd with those of *Rome*, could furnish good Memoirs to the Historians: To which add, the Acts of the Senate and Magistrates, so often cited by *Cicero*, *Suetonius*, and *Tacitus*; join also the
H Tables

(f) De Orat. l. 2. & 52.

(g) De Hist. Lat. l. 1. cap. 1.

h) Decad 1. l. 6. init.

Tables of the Censors, which *Dionysius Halicarnassensis* adduces in so many Passages ; as likewise the Laws of the Twelve Tables, the Inscriptions, &c. All which Documents seem sufficient to ascertain the Facts, and to answer the Doubts about them. I have, perhaps, said too much on a Subject, which Mr. Abbé *Tellier* has so learnedly clear'd up. If you read the Dissertation of a Learned Academician (*i*), you will be convinc'd, that it would be unjust to cut off the three or four First Ages from the *Roman History*.

This People, who had a Passion for Glory, took always great Care, that the Memory of illustrious Actions might not be lost. Scarce had the *Gauls* retir'd, when the military Tribunes fell to work, and made diligent search for the Treaties of Alliance, which remain'd yet intire, or of which Copies were scatter'd among the People ; which were good Materials and Foundations for those who set about writing the History, to build upon.

Nævius and *Ennius* did it in Verse (*k*). *Q. Fabius Pictor* was the first who wrote in Prose: He chose to write the History of his own Time ; that is to say, the *History of the Second Punick War*. This Historian, and his Successors, wrote in a very little Way : Such was *Cato* the Elder, as famous for his *Origines*, as for the Severity of his Censure: Such were *L. Piso*, *C. Fannius*, and some others. *Antipater*, who liv'd in the Times of the *Gracchi* and of the *Fannius* we have mention'd, added more Elevation and Strength to History

(*i*) Alem. de l'Academ. de Belles Lettres, T.6. Disc. 3.

(*k*) *Nævius* dy'd An. Rom. 349. He was older than *Ennius*.

History (1). The *Latins* afterwards being better acquainted with the *Greeks*, began to leave off the rude Way, and write more politely; and *Quintus Catulus*, that flowing O-
 rator, wrote the History of his Consulship in so pleasant a Style, as shew'd he had profited by his Acquaintance with *Xenophon* (m). *Sisenna*, Cotemporary with *Marius*, surpass'd the preceding Historian, but came not up to the Perfection of History; which was not seen in all its Beauty, but under the Dictatorship of *Julius Caesar*, and the Empire of *Augustus*. History grew weak under *Tiberius*, and expir'd under *Trajan*. *Tacitus*, tho' no ways comparable to *Sallust*, or to *Titus Livius*, may nevertheless be regarded as the last Historian the *Romans* had. If we go lower, the Authors of the History *August*—, *Fernandes*, *Paulus Diaconus*, &c. (more to be valu'd for what they narrate, than for their Manner of narrating) show us what History was in the 4th, 6th, and 7th Ages. It is easy to judge, that the Barbarity of the 10th Age infected History: Facts heap'd up without Choice, cloath'd with childish Circumstances; a gross Elocution; a cold and faint, insipid Narration; no care to discover the Motives that put Men upon Action, nor to remount to the Source of their Actions; no care to animate the Discourse, and make it pleasant. This is the Notion we may form, and have of so many Chronicles, which the huge and learned Collections of the Historians of *Italy* and *Germany* have given us.

The Re-establishment of Learning gave oc- The
 casion to pure and polite Writing. History Moderns.
 H 2 dress'd

(1) Cic. Orat. l. 2. n. 54.

(m) Idem in Bruto.

dress'd itself in the Style of *Livy* and *Tacitus*, yet without being able to appear with the Spirit of those great Men. Every one wrote in the manner most suitable to his own Taste and Talents. The Grammarian set himself to polish his Style, and to adorn his Diction. The Learned had too much Erudition and Criticism in his History; he despis'd the light Graces which embellish the Narration (*n*). The Politician penetrated with great Judgment into the most conceal'd Causes of Events; he enter'd into the Genius of the People, and of those who govern'd them: But must he in the Sequel speak of the Motions of Armies, give an Account of a Siege, or of a Battel? This able and judicious Historian can sustain the Character no longer; he shews plainly his Ignorance in the Point of War (*o*). On the contrary, the Man of the Sword wrote of, and spoke like a *Connoisseur* of Encampments, Evolutions, and the Operations of a Campaign; but his Talents were confin'd to the Military: His History leaves his Readers ignorant of the wise Regulations, which in time of Peace establish the publick Tranquillity; and of the good Laws, which make the Happiness of Civil Society. Tho' with regard to the Arts and Sciences, we are superiour to the Ancients; yet we are not their Equals in History. Let us hope, however, that the Care which is daily taken to cultivate all sorts of Knowledge, which is capable to adorn our Minds, and extend our Ideas, will one Day give

(*n*) Mess. Adr. de Valois & de Cordemoy dans leur Hist. de France.

(*o*) *Grotius* in his *Annals of Flanders*.

give us a *Thucydides* and a *Sallust*; at least, the universal Approbation some Authors have met with, who have written History with great Art, and have known how to join that which is delightful, with what is both simple and noble, fortifies this Hope, and shows that it is not without Foundation.

The HISTORICAL ART.

THE Ancients, who were so rich in Models for History, have left us but a small number of Tracts concerning the Manner of Writing it. *Dionysius of Halicarnassus* and *Lucian* are the only among the *Greeks*, who have said any thing towards it. *Cicero* before them had touch'd the Subject with greater Justness; but, 'tis possible, with too great Brevity; but that very little which he gives upon this Subject, in the second Book of his Orator, may, to him who has a good Taste, be as good a Guide as the long Works of *Patrici*, *Folieta*, *Mascardi*, *Vossius*, and so many others who have multiply'd without number; they are to be found in the *Penu artis historicae*. One had need to take care to distinguish and to pick out the good from the bad or indifferent in this tiresome Compilation. Mr. *de Cordemoy* (p) and Pere *Rapin* undertook this troublesome Task, and executed it with great Judgment (q).

H 3

IN-

(p) De la maniere d'écrire l'histoire.

(q) Instructions sur l'histoire.

INSCRIPTIONS, DE- VICES, BLAZONING.

HERE is a new Kind of History, which is not kept in Closets, but is exposed to the View of the People, in the Streets and publick Places ; which may be consulted at any time, and which, being engraved on Marble and on Brass, promises Immortality to Heroes.

Inscrip-
tions

Inscriptions are very ancient ; they were in common Use among the *Greeks*, and were confounded then with Epigrams. The *Romans* did not neglect these short sort of Histories ; they flatter'd too much the Vanity of private People, most part of whom would have been forgotten, if their Tombs, which subsisted, had not told us their Names, Employments, and personal Qualities.

The Desire of Glory is common to all Nations ; these Nations, that rais'd themselves on the Ruins of the *Roman* Empire, retained something of the *Roman* Manners and Customs ; and having at last divested themselves of that Barbarity which savour'd still of their Origin, they continued to make Use of the *Latin* Language in the publick Monuments. These *Inscriptions* oft-times answer'd ill to the Dignity of the Matter ; sometimes they were more fit to expose the Lowness, and the puff'd-up Style of their Authors, than the Actions or Virtues of the Heroes, for whom they were made. Nothing could be done better than to trust the Care of them to a small number of Persons, vers'd in the Knowledge of Anti-
quity

quity and the *Belles Lettres*. 'Twas this gave occasion to the Establishment of the Academy of *Belles Lettres*. Mr. Colbert form'd the Plan of it; and from the Year 1663, we saw four learned Men, chosen from among those who compos'd the *French* Academy, who were appointed to labour on Inscriptions and Medals, and Devices, which might be presented to them to be made for the King. This new Colony of the *French* Academy increas'd with such Reputation, that it has, at present, not only carried the publick Monuments to the highest Point of Perfection; but has, by its learned Researches, given Light to the darkeſt Ages, clear'd up ancient History, and made ſound Criticiſms on the moſt obſcure Facts.

But is not this learned Company miſtaken in the Choice of the *Latin* Language for Inſcriptions? Has it not paid too great a Deference to an abuſive Cuſtom? Among the *Greeks* and *Romans*, the Inſcriptions were, 'tis ſaid, in the vulgar Language; ſhall the *French* Language, in this Reſpect, be in a worſe Condition than the dead Languages? No; it is not from the blind Impulſe of a received Uſage, that ſo learned an Academy has given the Preference to the *Latin* before the *French*: It conſider'd, without doubt, that the underſtanding of thoſe ſort of Pieces belong'd of Right to thoſe who have had ſome Education; and that from them it ought to paſs and be communicated to the Vulgar. It ſaw that the *Latin*, becauſe of its Conciſeneſs, and the Inverſion of Words which is peculiar to it, is much more fit to make Images and Representations; in ſhort it ſaw, that the *Latin* Expreſſion is ſhorter, more ſonorous, and more fine than the *French* Expreſſion; and which may be

added, will probably last longer, and be understood when no Expression in any modern living Language can. It is not therefore without Reason, that the *Latin* seems to be consecrated to the Glory of great Princes; tho' the Mother Tongue is often successfully made use of in Honour of illustrious Persons, but of a private Condition.

Devices.

As for *Devices*, they are of a modern Institution; they are not before the Time of *Paulus Jovius*, who was the first that gave the Rules of them in the 16th Century, a little while after the Expedition of *Italy* by *Charles* the VIIIth.

Coats of Arms.

Coats of Arms, are in a Manner a short History of Families; they distinguish the different Degrees of Nobility, and their different Alliances; they make sometimes an Allusion to a famous Action. Some Authors have thrown out a great deal of Erudition to show, that they came to us from the *Greeks* and *Romans*; but the most judicious Writers (r) fix their Rise and Date from about the 11th Century. Before that Time, they say, there were no Coats of Arms, neither upon Tombs, nor on Seals, nor on Money. Nor is there any Historian who speaks of them before that Time. The History of *Geofroy* Count of *Anjou*, and Son of *Foulques*, written by a Monk of *Marmoutier*, is the most ancient Monument which makes mention of Coats of Arms. The Voyages beyond Sea, under *Henry* and *Philip* the first, Kings of *France*, gave occasion to these Marks of Honour, and the Tournaments brought them in Vogue: But to whom do we owe the Origin of the Tournaments? 'Tis a

Tournaments.

Question

(r) Velfen, du Chesne, Fauchet, du Tillet, Blondel, St. Pourth, &c.

Question the Learned are not agreed about. *Pancirolus* gives it for *Emanuel Comnenus* Emperor of *Constantinople* (s). *Pere Menestrier* (t) gives the Invention of them to the *Germans*. Mr. *L'Abbé de Cboisi* (u) gives the Honour of them to a *French Gentleman* call'd *Geoffroy de Preuilli*. Whatever be in it, 'tis to the *French* we owe the *Blazon*; they made an Art of it; and 'tis in our Language that Strangers blazon or colour their Coats of Arms. The Authors, who have written of *Blazoning*, are too many to be taken Notice of here. *Pere Menestrier* has assembled them all in his *Bibliothèque*; there you may see their Names, and their Works.

PHILOSOPHY.

PHILOSOPHY, says *Cicero* (x), is the Study of Wisdom. In the Language of the Ancients, Wisdom is the Knowledge of Things Divine and Human; that is, the Knowledge of God and of the Universe, which is his Work and Creature; the Knowledge of Man and of his Duty. According to this Idea, which is very good and very simple, Philosophy is as ancient as the World. Man, when newly made, must both have known and lov'd his Maker; and the wonderful Sight of Nature,

(s) Liv. 2. de choses nouvellement inventées, ch. 20.

(t) Origine des Armoiries, ch. 3.

(u) Hist. de Philippe de Valois, liv. 2. ch. 7.

(x) Tusculan. I. init. Offic. 1. 2. c. 2.

ture, in all its Beauty, must have ravish'd him into this Love, and led him into this Knowledge, the Moment he was created ; and by consequence, into a Sense of that Homage and Duty he ow'd to his great and bountiful Creator. The first Man therefore was the first Philosopher.

Before the
Deluge.

Amongst his Descendants, the true Philosophy, which is inseparable from the true Religion, was preserved in the Posterity of *Setb* ; and af-

After the
Deluge.

the Deluge, the Children of *Sem*, and those of *Abraham*, handed down this Philosophy from Age to Age. Among the *Israelites*, none but

Israelites.

the Priests were the Trustees of this holy Philosophy ; their Lips preserved Knowledge, and Instruction was received from their Mouth (y).

Egyptians.

So it was also among the *Egyptians* ; their Priests, and they only, taught the Rules of Wisdom, and the People were oblig'd to hear and learn them from them ; and the Ignorance of these Precepts was not excused in any Profession. The Philosophy or Religion of the *Egyptians* was much inferior to that of the *Hebrews*, which was solely founded on the eternal Law ; but it was more pure than was afterwards the Philosophy of the *Greeks*. Multiplicity of Opinions and the Partiality of Sects distracted their Philosophy. The Notions of the *Egyptians* were more sound, being more conform to the Simplicity of Nature ; and as they were a People of a more penetrating Genius, their Views were more extensive. Their moral Laws, which were necessary for all Conditions of Men, were delivered in the plainest Manner : But the Sciences, which were merely curious, and had no immediate Influence on the Manners of Mankind, were veil'd and cover'd under

(y) Malachi ch. i. v.

under Hieroglyphicks; they made a great Mystery of them to the People and to Strangers. This Conduct, how unaccountable soever in Appearance, was of good Use in some Respects. It procur'd a great Veneration for the Priests and their Disciples. The Soldier, the Tradesman, and Husbandman, not idly troubl'd about Philosophy, minded their own Business; the Sciences, when in the Hands of a small Number, were not liable to that Diversity of Opinions; and were with greater Surety apply'd to the Advantage of the Publick. As the *Egyptians* did not easily communicate their Knowledge to other Nations, their Doctrines are but little known. All they have suffered to transpire has been carefully collected by that great Antiquary Mr. *Selden* (z), and by Father *Kircher* (a): But I don't know if these learned Men could warrant all their Conjectures.

The *Phœnicians* cultivated Philosophy with *Phœnician* great Care. *Thales*, who was of *Phœnicia*, *ans* and while he resided at *Miletus* (b), taught the *Greeks*. *Greeks*. the first Elements of Philosophy; and which, 'tis said, he brought to Perfection by the Discoveries he made in *Egypt*. He confin'd himself to Physick, Geometry, and Astronomy. He flourish'd in the Times of *Cyrus* and *Cambyses* Kings of *Persia*, and was the Father of the *Ionick* Sect, which fill'd *Greece* with a Multitude of great Men. *Anaximander*, the Disciple of *Thales*, added new Observations to those which his Master had already made; but those who came from his School, far from following his System, were divided in their Opinions

(z) De Dīs Syris.

(a) In Oedipo Egyptiaco.

(b) A Town of Ionia.

nions about the first Principle of natural Things. *Anaxagoras* acknowledg'd an eternal Being for the first Agent; *Heraclitus* made Fire, *Democritus* Atoms, and *Anaximenes* made Air the first Mover.

When the *Ionick* Sect began to appear in Greece, *Pythagoras* of *Samos*, who had studied under *Phercydes* the Syrian, established the *Italick* Sect in the Country about *Naples*: He made a Voyage into *Egypt*; and 'twas there he laid the Foundations of his Doctrine, and learn'd the obscure and mysterious Way of Teaching. The Severity of his Injunctions and Rules, supported by his own Example, and the exact Abstinence which he made his Disciples observe, help'd to reform the Manners and to fortify the Bodies of the *Crotoniates*. The greatest Wits of Greece and Italy, mov'd by his great Fame, came and submitted themselves to his Discipline. His most famous Disciples were *Ocellus* the *Lucanian*, *Timæus* the *Locrian*, *Archytas* of *Tarentum*, *Philolaus* of *Croton*, *Melissus* of *Samos*, *Parmenides* and *Zeno* of *Elæa*.

In Greece, *Socrates* the *Athenian*, a Man of vast Genius, of profound and universal Knowledge, confin'd himself to the teaching of Morality, and making Men true Philosophers; for which he had an admirable Talent, and he put it to its proper Use. *Criton*, *Aristippus*, *Cebes*, *Simias*, and *Euclides* of *Megara*, are number'd among his Disciples; but *Plato* and *Xenophon* were the two most illustrious, and the only, who have preserv'd in their Writings the Doctrine of their Master. But Jealousy divided them; the one, in his Republick, gave the Preference to a popular Government; the other, in his *Cyropædia*, shews that Monarchy

is the most perfect Government. This Difference of Opinion, as 'tis said, occasion'd that Indifferency between them, with which they have been so often reproach'd ; and which certainly was not to the Honour of either one or the other.

Plato was the beloved Disciple of *Socrates*, and succeeded to him. He imitated his Master perfectly in his Way of teaching Philosophy. He had a good Stock of Knowledge of his own, and he improved it a great deal by the several Voyages which he made. When he was in *Egypt*, he had Occasion to converse with the *Jews*, and to read the Books of *Moses*, which a Man of his Genius could not miss of profiting by ; and it is very probable, that he drew from these Fountains of true Philosophy, both the Sublimity of his Ideas, and the Nobleness of his Expressions. *Plato* laid the Foundation of his Philosophy in *Sicily*, and had some illustrious Disciples in *Syracuse* ; as *Dion*, the Brother-in-law of the first *Dionysius* Tyrant of *Syracuse*, and *Dionysius* the younger, who succeeded his Father, &c. His Lessons made a surprizing Change at that Court ; for, from being sunk in Effeminacy and Indolence, it became the School of Virtue, and the Sanctuary of the high Sciences. So rapid a Progress lasted but a short while ; Flattery stopt its Course ; but Philosophy found a more solid Establishment in the Academy at *Athens*.

Speusippus, *Plato's* Nephew, and *Xenocrates* who had been his Hearer, differ'd in some Opinions, and founded two different Sects. *Polemon*, *Crates*, and *Crantor*, succeeded to *Xenocrates*, and changed nothing in the Doctrine of *Plato*. *Arcefilas* differ'd widely from him.

Lacydes

Lacydes and *Carneades*, who came after, softened what they thought too hard in the Reformation of *Arcefilas*, and founded the new Academy. *Socrates* was not positive; but so moderate in his Opinions and Discourses, that he left to his Hearers the Liberty of canvassing the Matter, of disputing for and against. This Liberty degenerated into Licentiousness, and gave Occasion to all the Changes that happened in his School. And the new Academicians at length rejected all Certitude, and admitted of nothing but the Probable; and counting it their Glory to avoid the Arrogance of being decisive, they contested and disputed about every thing (z).

This Incertitude of the Academicians went yet a greater length in the other Sects; they pretended to found it on the Principles of *Socrates*, but did not understand him aright (a). *Ariston*, *Pyrrhon*, and *Herillus*, maintained every thing to be doubtful; so that having no stable Opinion, nothing to hold by, they stray'd, and labour'd for ever under continual Difficulties and Hesitation. From these three Chiefs sprung the *Scepticks*, who pretended to doubt of and dispute the most evident and incontestable Principles. Their whole System is reducible to this, viz. That it is not possible to discern Good from Evil, nor that which is True from that which is False. A fertile Principle, which in after Ages brought forth Libertines and Atheists. On the other side *Aristippus*, mistaking the true Meaning of *Socrates* concerning Pleasure, had a wrong Idea of it, and made it consist in the Gratification of the Senses. *Epicurus*, tho' more refin'd than *Aristippus*, did neither exclude the Word *Pleasure*, nor explain

(z) Cicer. Offic. l. 2. c. 2.

(a) Ibidem.

plain it distinctly ; which Conduct of his has made it doubtful what were his true Sentiments. Some have undertaken to justify *Epicurus*, with respect to the fundamental Principle of his Morality : But no body has so much as thought of defending the *Epicureans* his Followers, who may be supposed to have embrac'd the Opinion of their Master.

Antisthenes studied to imitate the Patience and Firmness of *Socrates*. From *Antisthenes* came the *Cynicks*, and afterwards the *Stoicks* (d). The Principle of 'em all was, *That we ought to follow Nature* ; and they differ'd in nothing among themselves, but in their Explication of that Maxim. The *Cynicks* were persuaded, that *to follow Nature* meant nothing else, than that a Man should gratify his natural Motions and Appetites, which are common to us with the Brutes. The *Stoicks*, by the Word *Nature*, understood right Reason, which shews a Man what he ought to do, and what he ought to suffer ; which banishes Passion and Humour ; which teaches, that a Man ought to have no other Motive in his Actions, but the Love of Truth and Justice. The *Stoicks* tarnished these fine Sentiments, by maintaining that a Man had the Power of fulfilling all these Duties within himself, and of making himself happy by so doing. They were the most presumptuous of all the Philosophers ; but they gave great Examples of the moral Virtues, which are always useful to Civil Society : They acknowledged for their Chief, *Zeno* of *Cyprus*, who had been the Disciple of *Polemon* the *Platonist* ; and who gave his Lessons in the Gallery of *Athens*, in the Time of *Antigonus* and *Ptolemy*.

A long

(d) Cic. de orat. l. 3. n. 46.

A long Time before this, and under the Reign of *Alexander*, *Aristotle*, who had studied under *Plato*, being displeased with the Manner *Xenocrates* taught Philosophy, left the Academy, and went to the *Lycæum*, where he established his School. He taught his Scholars walking along with them; therefore they were called *Peripateticks*. *Theophrastus* succeeded to *Aristotle* after his Death, and *Straton* succeeded to *Theophrastus*, and *Lycon* succeeded to him; and after *Lycon*, *Demetrius Phaleræus* and *Heraclides* were Masters of the School. They taught the Doctrines of *Aristotle* by Tradition; for *Aristotle* had prohibited the Publishing of his Writings. *Theophrastus*, to whom he had given them in Trust, left them to *Neleus* when he was a dying. *Neleus* conceal'd them so carefully, that they were not known for a long Time, not till about 160 Years after, when they were sold to *Appellicon*; and after that, *Sylla* carry'd them from *Athens* to *Rome*.

Philosophy, which was so amiable in its Origin, degenerated very soon among the *Greeks* from the Nobleness of its Birth. It took all the Forms of the different Passions of Men, whom it ought to have reformed. became reproachful under *Lycon*, impudent under *Diogenes*, voluptuous under *Metrodorus*, impious under *Diagoras*. The Philosophers made use of their Profession to procure the Favour of Princes; they made it mercenary, for sordid Gain and Interest. It became, at length, nothing but a vain Amusement, and a Pretext for Idleness, and a mere Jargon of endless Disputes. They neglected, in short, the useful Part, push'd on their Speculations
beyond

beyond all Bounds, till they evaporated into trifling Subtilties.

But as Philosophy had become contemptible in *Greece*, it continued to be respected in *Italy*, where it had taken deep Root, since the Establishment of the *Italic* Sect founded by *Pythagoras*. That Philosopher was Cotemporary with *Servius Tullus* the 6th King of *Rome*; and 'tis probable enough that his Disciples gave the *Romans* a Taste and Love for their severe and frugal Way of Living. For is it to be imagin'd, that the *Romans*, originally a rude Multitude, and of corrupt Manners, should have so soon distinguish'd themselves by such shining Virtues as appear'd in the *Camilli*, the *Curii*, and the *Fabricii*, without Instruction, or having had the Example set them? Is it not more natural to think, that being instructed by their Neighbours, and excited by the Example of the People of *Croton*, who under the Conduct of *Milon* had routed the formidable Army of the *Sybarites*, they adopted their Discipline, and put it in Practice in their Conquests?

This practical Philosophy, which tended At *Rome*, only to the Exercise of the Virtues, was preserved at *Rome*, by a continued Tradition, to the last Age of the Republick; and then it was, that the *Romans*, by their Acquaintance with the *Greeks*, learn'd the Principles and Rules of Morality, of which they had so many Examples at Home. About this Time, Philosophy began to recover and rise again in *Greece*, from a Reason contrary to that which had made it fall. The first *Ptolemies* had formerly brought over the principal Philosophers to *Alexandria*; and in the Time we

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speak

(e) Fleury, Choix des Etudes, Art. 3.

speak of, one of their Successors drove them out of it. These Exiles taught and form'd *Atticus*, *Cato Uticensis*, and *Brutus*, who by their great Politeness knew how to correct and smooth the rough Virtues of their Fathers. Moreover, among so many Sects of Philosophers, the *Romans* rather lov'd to follow those of them they found most agreeable to their Taste, than to be Authors, and introduce new ones. Thus, *Cato* preferred the Sentiments of the Stoicks, as most conform to the Austerity of his Manners. The calm and sweet Temper of *Cicero* made him incline to the Academicks. The Love of Pleasure made *Cæsar* embrace the Tenets of *Epicurus*. Under the Emperors, the Circumstances of the Times made Philosophy take very different Forms. The *Romans* having become the Sport of the fantastick Humour and Cruelty of *Tiberius* and *Caius*, sought and found in the Doctrines of *Zeno* a Firmness necessary to support them under their Misfortunes; and they accordingly put their Philosophy in Practice. But the Attacks of *Domitian* were so violent, that they yielded, and were no more the firm Philosophers; they were Philosophers only in Shew, not in Manners (*f*). *Adrian* and the *Antonines*, who were Lovers of Philosophy, encouraged and honoured it: But *Rome* had now no Philosophers of its own; they were all *Greeks* who profess'd it there, as *Epiëtetus*, *Plutarch*, *Taurus*, *Apollonius*, *Numenes*, and a great many others. At last, sound Philosophy being infected with the Vices of those who profess'd it, fell altogether under the Empire of *Julian* the Apostate; and Magick came in its Room.

The

(*f*) Aul. Gell. notes Atticæ, l. 9. c. 2.

The Christians, who had studied the Pagan Philosophy before their Conversion, reclaim'd as properly their own, whatsoever they found that was good in it: And made use of the Maxims of the ancient Philosophers, to refute the Gentiles and Hereticks.

The primitive Christians.

The Fathers of the first two or three Centuries made use of the Doctrine of *Plato*. They believ'd it more proper than any other to prepare the Minds of Men for true Wisdom. In the following Ages, the Ecclesiastick Writers began to have a Relish for *Aristotle* and his Doctrine, which was suspected before. It prevailed in the East from the Time that *Anatolius* Bishop of *Laodicea* taught it, under the Empire of *Dioclesian*; and it made great Progress afterwards amongst the *Moors* and *Arabians*.

Moors and Arabians.

Almanzor, who began to reign in the Year Anno J. of the *Hegira* 137, and the Califfe *Abdalla*, encouraged and studied with Care the Philosophy of *Aristotle*. It was taught over *Africk*, *Spain*, and in all Countries of the *Mussulman* Dominions, only as it was interpreted and commented by *Alfarabius*, *Algazar*, *Albumazar*, and some others, whose insipid Commentaries destroy'd the Text of that Philosopher.

C. 735.

In *France*, *Aristotle* had not always the same Fortune; his Writings were not well receiv'd at first: They were condemn'd in a Council, Anno 1209; and afterwards by an Assembly of Bishops, which was held at *Paris* under *Philip the August*; by the Cardinal of *St. Stephen*, Legate of *Innocent III*. Notwithstanding all these Proscriptions, *Alexander Ale. sius* and *St. Thomas Aquinas* set about the Explication of the *Peripatetick* Doctrines, and

In France.

laid the Foundations of the Scholaſtick Philoſophy. The Authority of theſe great Men was of great Weight, and contributed a great deal to the Introduction of the Principles and Method of *Ariſtotle*. In the mean Time they were much miſtaken; for the School-Men neither knew this Philoſopher, nor made him known, but in a *Mooriſh* Drefs. The *Arabick* Terms turn'd into bad *Latin* made this prevailing Philoſophy appear perfectly ridiculous; but Prejudice or Cuſtom threw a Veil over it, and hinder'd the Deformity from being perceiv'd. Its difficult and harſh Principles, to ſpeak as *Montagne* does (g), and its vain and empty Words, which expreſſed nothing certain and ſenſible, but were Signs of ſome confuſed, general, and perplexed Notions, made the fond Amuſement of the Learned for a long Time. Such was the State of Philoſophy; when about the Middle of the XVIth Century, *Des Cartes* having carefully examin'd the Philoſophy then in Vogue, was himſelf convinced, and had the Succeſs to perſuade others, that, in Philoſophical Matters, Authority ought to be ſilent before Reaſon. *Ramus*, *Tileſio*, and *Patricius* had before him endeavour'd to cure Men of their Prejudices, but to no purpoſe. *Cartes* was more ſucceſſful, and open'd a new and unknown Way. His System was well conducted; it was the Work of a fertile Genius and profound Meditation; he had Followers in the new Road he had cut out; but was both oppos'd and admired in his Turn. He became uſeful both to his Adverſaries and Followers: For by thoſe new Views which he gave, with Regard to philoſophical Enquires, he

(g) Liv. 1. ch. 25.

he help'd a great deal to bring Philosophy to that Degree of Perfection we see it in at this Day.

LOGICK.

THE first Part of Philosophy, in Order, is Logick ; or the Art of conducting Reason in its Enquires after Truth. It is believed, that the Disciples of *Pythagoras* form'd the Scheme and Principles of it. *Ocellus* was the first who used the Method of Elements. *Archytas* reduced the Objects of our Thoughts into different Classes. *Zeno* the *Eleæan* distinguished the Operations of the Mind (*b*).

Nevertheless, *Cicero* makes *Socrates* the Author of Logick, which, he says, he fetch'd from Heaven for the Benefit of human Society (*i*). In Effect, this Philosopher made a System of all the Precepts of this Science, and demonstrated the Use and true Practice of them in his familiar Conversation, which is properly what is call'd Dialectick. *Socrates* wrote nothing ; but *Plato* has preserv'd the Doctrine of his Master in his *Theætetes*, in the *Sophist*, and in the *Politick*, where he teaches how to divide and to define ; and in his *Cratylus*, where he examines the Nature of simple Words ; in his *Menon*, where he establishes the Manner of searching out the Truth, by making the Man with whom you engage upon any Discussion, produce and declare all

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that

(*b*) Rapin. Comp. of Plato and Aristotle.

(*i*) Acad. Quest. lib. 1. n. 4.

that he knows and can find in the Subject. This *Socrates* call'd, the laying of the Spirits, or bringing them to Bed. This Dialectick of *Socrates* is also found, as it were, by little Shreds in several other Treatises, of which Number are, the first *Alcibiades*, *Philebus*, *Euthydemus*, *Protagoras*, and the two *Hippius's* (*k*). As for the Method, *Plato* prefer'd that of the Orators, as the most useful; which under a careless Appearance, conceals a great deal of Art; and which, by the Means of a certain Pleasure and an agreeable Air over all the Discourse, seems the most proper for removing Prejudices and allaying the Passions.

Aristotle chose rather to use the Method of the Geometricians, which admits of no Term that is not defin'd, nor of any Axiom that is not granted and submitted to; and he reasoned from these in the conclusive Form. By this it appears, that *Aristotle* would have to do with none but those who were without Prejudice, who were attentive, and entirely reasonable: He invented the Syllogism, or at least he gave the Demonstration of all its Figures, in his Books of *Analyticks*: In a Word, he stopt at pure Speculations, which, for the most part, are but weak Helps for perfecting our Reason. *Cleanthes* and *Chrysippus* afterwards stuff'd Logick full of Quiddities and trifling Subtilties (*l*). Their Successors gave to many things, and to the different Ways of conceiving them, strange Names, which they were not at Pains to explain (*m*): It was this sort of Logick, which in after times was adopted by *Occam* and his Disciples: It was not bet-

(*k*) Fleury disc. sur Platon.

(*l*) Cic. l. 3. de finibus.

(*m*) Plaut. Asinar. rudent. &c.

bettered by passing through the Hands of the *Arabians*; and to the great Shame of Reason, it triumphed a long Time in the Schools. *Edmond Richer* about the End of the 16th Century, did all he could to bring Logick out of that low Condition, into which the Schoolmen and Nominalists had reduc'd it: He endeavoured to bring it back again to the first Principles of Nature: His Book call'd *Obstetrix Animorum*, which is not so much read as it deserves, was as the Fore-runner of that admirable Method of *Descartes*, which *Pere Malebranche*, and all those who have come after, have endeavour'd to illustrate.

MORALITY.

LOGICK is the Foundation of a Part of Philosophy, which is of much greater Importance, I mean Morality, which may be defin'd, *The Art of living well, according to the Light of Reason*. The ancient *Egyptians* took as great care to put in Practice the Precepts of Morality, as to teach them. History represents them to us, as the most sociable of all Men. It was in their School that *Pythagoras* and the Divine *Plato* were instructed in that Wisdom or Moral Philosophy, which is admir'd in the Poem of the first, and which shines out in all the Writings of the second. It is indeed in Morality that *Plato* has excelled. It is also the only Science, which *Socrates*

cultivated with the greatest Care. It is display'd in the Banquet of *Xenophon*, in the *Philebus*, in *Plato's* Commonwealth, in the twelve Books of the Laws, in *Gorgias*.
 “ Nothing, says a learned *Platonist* (r), is
 “ more pure, as to what regards Disinterested-
 “ ness, the Contempt of Riches, the Love of
 “ other Men, and of the common Good ; no-
 “ thing more noble, with regard to the Firm-
 “ ness of Courage, the Contempt of Pleasure or
 “ Pain, the Opinion of Men, the Love of
 “ true Pleasure, and sovereign Goodness and
 “ Beauty.

The Moral of *Aristotle* is founded on good Principles, but is too much fet upon Man, and confin'd to the Duties of Civil Life. It neglects absolutely those of the Creature towards its Creator. The same Defect is observable in the Morality of *Cicero*, which he treats of particularly in his Books of Offices. In that excellent Work, he follows the Maxims of the Stoicks, the most enlighten'd of all the Pagans with Regard to the Duties of Men. If that Treatise of *Cicero's* can't make a Christian, it is, at least, very proper for forming a reasonable Man ; and by so doing, may dispose him to receive with Docility the greater Light and Truths of the Christian Religion.

(r) M de Fleury, disc. sur Platon.

M E T A.

METAPHYSICK.

BEING, in general, and spiritual Substances, are the Object of Metaphysick. The Traditions of the Children of *Noah* concerning a Supreme Being, the Angels, and the Immortality of the Soul, were carry'd by their Posterity into all Countries where they establish'd themselves: But being very soon corrupted by carnal and vicious Men, they were so chang'd from what they were when *Noah* deliver'd 'em, that they were hardly to be known; and, except among the *Jews*, there were no clear Vestiges to be found of so pure a Doctrine. The *Egyptians* maintain'd the Immortality of the Soul. *Pythagoras* own'd that Truth; but he was ignorant of the Fall of Mankind by the first Man; judging however, that as Man was expos'd to all sorts of Miseries, the Moment he came into the World, he must have brought some Guilt along with him: Therefore he imagin'd the *Metempsychosis*, that is, the Passage of the Soul from one Body into another. This was not the only strange Notion of that Philosopher: As he could not conceive the Estate of a Spirit separated from Matter, he suppos'd, that our Souls were so many Portions of that universal Intelligence, which he call'd God; and that after having been purify'd in the Body, from the Stain they had contracted, they were re-united in the *Æther* to that universal Soul. According to this Principle, the Soul was no otherwise consider'd to be eternal, but as it
was

METAPHYSICKS.

was Matter, no part of which perishes, tho' it be subject to various Modifications.

Plato adopted these raving Dotages ; the Mysteries of Numbers explain'd by *Pythagoras*, the Order of Intelligences, Reminiscences, and the Ideas separated from God, which some think are to be met with in the *Parmenides* of *Plato*. Of all the Works of *Aristotle*, the most imperfect seems to be that of his *Metaphysics*. This is the Opinion of his most zealous Defenders ; they have been taught and admir'd in the Schools for many Ages.

Descarte was the first who dar'd to leave the beaten Road : Thought gave him the Proof of his own Existence. *I think*, says he ; *therefore I am, or exist*. From this so simple a Principle, but very fertile, he drew other Principles ; and from them, a great Number of Propositions, which, from their natural Connection, found an easy Access to the Mind. *Pere Malebranche*, tho' a *Cartesian*, seem'd to be an Original, by that Art and Address he show'd in his Books of *Metaphysics*. Every body knows the Epistolary Fight he had with *Mr. Arnaud*, about true and false Ideas, and which lasted as long as the Life of those two Champions.

Metaphysick opens a large Field, in which many have exercis'd themselves, and have wrote huge Volumes of *Metaphysics* ; but none of them without Faults. *Bacon* is not thought to be exact : His Genius is good, but don't shine out. *Hobbes* is obscure ; he wants Solidity, and has nothing that pleases : His Opinions are singular, often floating and uncertain. In general, if we believe *Mr. Leibnitz*, the Metaphysick of the *English* is very much confin'd. This Learned German, who judg'd
so

so well of others, seems to have wander'd, and gone astray himself, in his *Harmony Pre-establisht*. Such will always be the Lot of those, who, not satisfy'd with known Truth, seek to raise a Name to themselves, by the Novelty of their Systems.

PHYSICK.

PHILOSOPHY, after Examination of Intellectual Substances, descends to take notice of the different Effects of Nature, and endeavours to explain their Causes. This is properly the Province of Physick. As the Knowledge of Physical Causes depends on the Knowledge of the Principles or Elements, of which all sensible Things are compos'd; 'tis the Knowledge of those Principles, which has always been the Object of the Inquiries of Philosophers. *Thales* taught, that Water was the only Principle of all Bodies. *Anaximander*, his Disciple, distinguish'd Four Elements, and suppos'd them to be the integral Parts of mix'd Bodies. *Anaximenes* attributed the Production and Formation of Bodies to the Condensation, and to the Rarefaction of the Air. *Anaxagoras*, without stopping at secondary Principles, ascended to a superior Intelligence, which conducted every thing with Wisdom: He labour'd to extirpate those weak, timid Superstitions, which are the Offspring of Ignorance; and to inspire Men, says *Plutarch* (o), with solid Piety towards the Gods. *Heraclitus*

The
Ancients.

(o) In Pericles.

tus attributed the Origin of all things to Fire ; that is, to a temperate Heat, or a Heat mix'd with Humidity. This was also the Opinion of *Zeno* and *Parmenides*, and which *Lucretius* (*p*) endeavours to render ridiculous, for want of truly understanding it. *Democritus* and *Leucippus*, not satisfy'd with the Doctrine of other Philosophers, maintain, that Atoms, or simple and indivisible Bodies, are the Principles of divisible and compounded Bodies. *Empedocles* believ'd a certain Sympathy between the Four Elements. And according to this Philosopher, As the perfect Agreement of these Elements form'd the Universe, and support it ; so it must of necessity perish, if ever the Elements disagree, contract an Antipathy, and fall into War against one another.

Socrates neglected Physick as useless. ' To what purpose is it, said he, to amuse ourselves with these Speculations, to consider the Reasons of the Movements of Bodies, and of their Mechanism ? Is it not much better, to stop at the Designs of that Sovereign Spirit which governs Nature, and not trouble ourselves with Inquiries which can never satisfy ?' *Plato*, whose vast Genius made him grasp at the Knowledge of every thing the Sciences extended to, sought in the Philosophy of *Pythagoras*, that which the Philosophy of *Socrates* could not teach him. But being accusom'd to reason upon Moral Subjects in a manner suitable to them, he would needs reason the same Way on Physical Matters, and explain them by mutual Respects, or Relations to one another : Which appears evidently in his *Timæus* ; where he endeavours to explain the Structure of the human Body and the Sensations.

tions. The Design is certainly good ; but unluckily, the Execution of it is not correspondent.

Aristotle, who was form'd in *Plato's* School, follow'd the same Way, and even went a greater Length than his Master with his Moral and Metaphysical Reasonings, which he apply'd to Physical Subjects. The Disciples of those two Philosophers recommended and propagated their Doctrines of Natural Philosophy, but with a very different Fate. The Physicks of *Plato* were known and taught no longer than his School and Sect lasted. The Physick of *Aristotle*, being rais'd on the Ruines of *Plato's*, has continu'd to be taught in all the Schools, even to our own Days, and has been profess'd by the Learned.

Galileus, in *Italy* made a new Light, arise on Natural Philosophy. Some pretended, he was assisted by the Principles of *Leucippus*. It's possible, he knew nothing either of *Leucippus*, or his Doctrines. But the Admirers of the Ancients pretend always to find them again in any of the Performances of the famous Moderns. According to them, they always borrow from some one or other of the Ancients.

Torricelli and *Viviani*, the worthy Successors of *Galileus*, reduced Physick to the unchangeable Laws of Motion, which were little or not at all known before. The *English Bacon* excited his Countrymen, by his Example, to the Study of Nature. *Boyle* observing, that his Predecessors had err'd as to Facts, apply'd himself to discover the different Properties of Bodies, by repeated Experiments. *Vanbelmont*, the *Fleming*, carry'd his Knowledge of Natural Things so far, that he became suspected of Magick. In

In *France*, Mr. *Gassendi*, a Man of great Learning, a declar'd Enemy of every thing which had the Air of Novelty, and very much prejudic'd in favour of the Ancients, took from *Democritus* and *Epicurus* what appear'd to him most reasonable, and built his System of Physicks upon it. So that he says little as of himself; and does little else but lend his Style to these Models. His Erudition oft-times hurts his Reasonings; it weakens them, and obscures their Connection. *Gassendi*, 'twould seem, had assembl'd the whole Forces of the Ancients to support their Physicks, which were like to be borne down; but in spite of an aged Reputation, and of all Efforts to sustain it, the Old Physick was forc'd to yield the Place to the New. The Mechanicks were now well cultivated and understood, and the New Physick made Nature to work after the same manner in its Productions, as Art wrought in any of its Works. Thus the Mind came to be satisfy'd from ocular Demonstration. Whereas formerly there was nothing to be had from Philosophers, but Words, the Signs of vague and uncertain Ideas. *Des Cartes*, who was born to make a Revolution in Physicks, undeceiv'd Men of their old Mistakes, and corrected their false Opinions, and made them sacrifice their old and predominant Prejudices to the Research of Truth. *Des Cartes* could not find fault with all the receiv'd Maxims, without raising up to himself great Enemies. Monsieur *Huet*, among others, declar'd against his System, and censur'd it sharply. Mr. *Du Hamel* was not very favourable to him, in his *Physical Astronomy*. Pere *Marsenne*, daring not to take part for or against him, fluctuated between *Gassendi*, *Des Cartes*,

Cartes, Pemmat, and Roterval. About that same time, *Des Cartes's* Philosophy was stoutly defended by Monsieur *Robault*. He had publick Conferences at *Paris*: And as he had the Talent of adapting the most abstract Matters to the Capacity of his Hearers, he carry'd a Number of Suffrages, and he also made excellent Scholars; one of the most famous of them was Monsieur *Regis*, who spread his Doctrine over the Provinces, where it was receiv'd, as it had been before in the Capital.

It is well and prettily said of Monsieur *Des Cartes's* Philosophy, that it is only the Anti-Chamber to the Truth. But if this Philosopher did not know all the Wonders of Nature, he has, at least, put those who came after him, in the Way to know them. His System, tho' superior to all others which had appear'd, was not simple enough. His globulous and his channel'd Matter, of which he got some Help, threw him after into great Difficulties. Of the three *Cartesian* Principles, Pere *Malebranche* retain'd only the *Subtil Matter*. This Principle alone, as 'twas manag'd by that Great Man, became the Source of all the Movements of Bodies, of all the Changes of Nature, and as it were the Spring of all the Machines of the World.

Des Cartes compos'd his Universe of an infinite Number of Vortices, or Whirlpools, of which the Fix'd Stars were the Centres. These Whirlpools being immense Collections of extremely agitated Matter, move all at once, and together; and every one of them in a Way which agrees with the Whole. They compress one another reciprocally by their

their centrifugal Forces; but they compress with so perfect Equality, that they preserve the Counterpoise they were put in. The Subtil, or *Æthereal* Matter (which is only the finest Fluid) diffus'd over every Whirlpool, is divided by *Malebranche* into numberless Whirlpools, almost infinitely small, and whose centrifugal Force is almost infinite. When the gross Particles touch one another immediately, and are at rest, they are compressed on all sides by the little Whirlpools which encompass them; which gives that Hardness and Resistance which their Parts make against their being disunited. If it happens, that these little Whirlpools that are contain'd in the Interstices of the hard Bodies, have no more the Liberty of moving as before, they endeavour by their centrifugal Force to re-establish these Bodies in their former State; and from thence comes the Spring, or Elasticity. Every Luminous Body presses the Sphere of the little Whirlpools that encompass it; that Pressure is the Light, and communicates itself in an instant from the Centre of the Sphere to its last Surface; because all is full. But as the Luminous Body is push'd back, every Moment it does push, it makes Vibrations by Pressure, whose Number being more or fewer in a determin'd Time, produce the different Colours. The same Principle serves to explain Reflexion, Refraction, and Weight or Gravity. In a word, he gives Reasons for the most abstruse Things in Physics. 'Tis true, this System of Pere *Malebranche* is not so much a new System, as a Copy of that of *Des Cartes*; because it turns all upon the Notion which was very familiar

miliar to this first Inventor, but which he had not push'd so far as he ought to have done. And, if you will, this shall be the *Cartesian* System reform'd, and put in its true Light.

We have said, that Gravity, a *Phænomenon* even till now incomprehensible, was explain'd by the System of the Whirlpools; yet that Explication has its Difficulties. Mr. *Huygens* and *Saurin* have learnedly solv'd them (r). But Mr. *Newton* has chosen rather to elude them, by establishing a System quite different. This Learned *Englishman* therefore, admits in general a Central Force, which he calls *Attraction*, and which makes the Parts of Matter to gravitate towards one another. A Law of the Motion of the Planets about their Centre, made Mr. *Newton* imagine a Central Force. ' Draw (says *Kepler*) from the Place ' a Planet has departed, and from that where ' it actually is, two straight Lines, which ' terminate in the Sun, the Area fram'd by ' these two Lines, and by the Portion of the ' *Ellipsis* which the Planet has run over, ' grows in proportion to the Time which ' passes during the Motion of the Planet: It ' now remains, to know exactly the Law of ' that Central Force.' A second Rule, establish'd by *Kepler*, leads Mr. *Newton* to the exact Knowledge of that Force. This Rule lies, in considering the Time of the Revolution of a Planet about its Centre, as proportional to the Square Root of the Cube of its

K

ham,

(r) Journal des Sçavans, Febr. 1705. Mem. de l'Acad. des Sciences, 1709.

middle Distance to the Centre (*s*). Mr. *Derham*, in his *Physico-Theology*, follows the *Newtonian* System. This Opinion has its Partisans among us. But several Learned Men adhere to their dear Whirlpools; and it's the Party which the greatest Number of our Natural Philosophers espouse.

If we compare these new Systems with the Agents which *Aristotle* put in motion, but without explaining their different Operations, we shall easily perceive the Superiority of our Physicks to those of the Ancients. But if we consider the long Series of Experiments, which can so hardly be adjusted to those new Systems, we shall be oblig'd to acknowledge that our Philosophers have not taken the right Road. They have dress'd up general Systems, and they have apply'd Experiments to them, according to their Appearance, or as they have cast up. Thence it happens, that the Truths which result from these Experiments, and which would be certain, if they were separately demonstrated, lose their Evidence, being mix'd, and as it were drown'd in the System. Which is the Reason why we cannot enough admire the Wisdom of the *Academy of Sciences*: That illustrious Company was made known, by the Learned Assemblies which were kept at M. *de Montmor*'s House. It was afterwards establish'd for the Advancement of Arts, *Anno* 1666. And from that time it has answer'd, by its Labours, to the good Intention of the Founder. Since the time it was fix'd by the invariable Rules, according to the Views of M. *de Pontchartrain* and

(*s*) M. *de Maupertuis* Discour. sur les differentes Figures des Astres.

and Mr. L'Abbé *Bignon*, it has enrich'd Natural Philosophy with an infinite Number of Discoveries: It makes every Day a great Collection of Observations: It provides Materials for founding a general System, and which will be rais'd all at once, when the Facts and Experiments, it takes care to collect, shall afford Light and Truth enough to make it perfect, and not to be shaken. The Academy of *Paris* communicates this wise Conduct to the Academies of the Provinces. This same good Conduct appears also in the Foreign Academies.

These celebrated Societies prefer the Experimental to the Systematick Philosophy: And they give grounds to hope, that we may see that Science brought to perfection; which, tho' cultivated for so many Ages, ought yet to be consider'd as in its Cradle.

NATURAL HISTORY.

WE are not to expect any other Advances in Physick, but those that shall be made in Natural History. It comprehends all that real Knowledge which is founded on Experiment; all which has a relation to Cosmography; that is to say, the Construction of the Universe and its Parts; the Anatomy of Plants and Animals; and the Arts which produce considerable Changes in Na-

tural Beings. *Pliny* has written a complete Body of Natural History, and the only one which the Ancients have left us. The Author of this great Work was of *Verona*, according to *Vossius* (*t*). He dedicates his History to *Titus*, who was Consul for the 6th time; which fixes the Date of its Publication to the Year of *Rome* 830, the 77th of our common *Æra*.

This History, which has no other Bounds but Nature itself, is too vast to be exact. A Writer cannot see all things with his own Eyes; and he may easily be deceiv'd by those who furnish him Memoirs. We may allow to the Partisans of *Pliny*, that he was incapable of imposing upon the World in Matters that he could verify himself. But let those Gentlemen grant on the other hand, that what he has advanc'd on the Faith of others, is oft-times false, and always suspected. Besides, *Pliny* considers only the Outside of Nature; he stops there. It's true, the outward Cloathing of Nature is fine; but is not sufficiently known of any, whosoever they be, who are ignorant of the internal Arrangement and hidden Springs of all the Parts: Nevertheless, this History is a very precious Monument of Antiquity. We understand by it, the most flourishing Condition of real Physick among the *Romans*, and what it amounted to. We may also learn from this History, that several things in Natural History are known at this Day to be false and fictitious, which have passed for true and certain for many Ages: And, on the contrary, that some things which the Ancients look'd upon as false, meet with no Contradiction at present.

Amongst

Amongst the Moderns, they who have labour'd in Natural History, have treated of the different Parts which compose it. It's true, they have restricted themselves to the Natural History of their own, or of some other particular Country. There's a great Number of them: Let it suffice to cite some of 'em. *Childrey* has written the Natural History of *England*; *Sibbald* that of *Scotland*; *Boet* that of *Ireland*; *Schwenckfield* that of *Silesia*; *Pere Rasinski* that of *Poland*; *Wolff* that of *Hesse*; *Wagner* that of *Switzerland*. We have that of the *Antille-Islands*, by *Pere Pertre*; that of *Jamaica* by *Sloane*; that of the *English America* by *Josselin*; that of *Mexico* by *Hernandes*. For the History of the New World has not been neglected; and it is not the least curious. But as this History in general is of vast Extent, it is best to take it in Detail, after we have stopt a little at the Article of *Medicine*.

M E D I C I N E.

THIS Science has two Objects, viz. the Preservation of Health, and its Re-establishment when it is lost. The first consists in the Regulation of Life, with regard to Diet, Exercise, &c. as Medicine prescribes. The second consists in the Knowledge of Diseases, which is called *Pathology*; and of their Remedies and Application, which regards *Pharmacy*, under the Direction of Medicine.

The Learned agree, that the *Egyptians* invented Medicine ; and indeed, in *Egypt* every thing seem'd to point out that Study. The Serenity and Purity of the Air and Heavens, and the Heat of the Sun, made Nature in *Egypt* strong and fruitful. *Æsculapius*, one of the Sons of *Menes*, compos'd Six Books on *Medicine* (y). He reign'd at *Memphis*, while his Brother *Mercurius* reign'd at *Thebes* (z). So this Art had its Birth in this small Kingdom. The *Egyptians* were so thankful for this Benefit, that they look'd upon these Six Books of *Æsculapius* as Divine Books ; and he committed them to the Custody of the Priests : Which proves, that the Priests only practis'd Medicine. But they order'd the Practice of it in such a manner, as every Disease had its particular and proper Physician (a). By so wise a Regulation, they avoid'd Jealousy, and render'd themselves more sufficient in their Profession and Business.

That the Priests also among the *Israelites* practis'd Medicine, there needs no other Proof, than that it was assigned them as their proper Function, to separate the Lepers, to judge of the other Legal Impurities, and to regulate the Manner of Purifications. All this makes a considerable Part of Medicine. There is mention made of Medicine in the last Chapter of *Genesis* (b), when *Joseph* caused the Body of his Father *Jacob* to be embalm'd : But it is plain, he made use of the *Egyptians* on this Occasion. Other Texts of Scripture are more decisive, with respect to the *Israelites* (c). *Afa*,
King

(y) Clem. Alex. Strom. 6.

(z) Marsham Chron. Can. *Ægyptiac*.

(a) Herodot. Hist. l. 2.

(b) Art. 2.

(c) Psal. 87. v. 11. Isai. ch. 3. v. 7.

King of *Judab*, when seiz'd with the Gout, is blam'd (*d*) for having put all his Confidence in the Art of the Physicians. A Passage of *Exodus* (*e*) marks also, that among that People Medicine and Surgery were not distinct Professions. Under the *Asmoneans*, and in the time of Jesus Christ, the *Jews* apply'd themselves to Medicine. The *Ecclesiastes* would have them honour'd who apply to it. He puts a Value on the Knowledge of Simples, and the Composition of Remedies (*f*). In the Gospel (*g*) it is said, that the Woman with the Bloody Flux had suffered much by the Physicians, and spent all she had on Medicines. Thence we may infer, that Physicians meddled also in Pharmacy. It is only in the later Ages that the different Parts have been professed and practised separately.

The *Greeks*, in the Times of the Heroes, made Medicine to consist only in dressing and curing of Wounds with topical Remedies (*b*). Their frugal and moderate Way of living, kept them free from Fevers and other Diseases; so that there was no Occasion for prescribing Diet and Regimen. This Golden Age lasted but a short while: Luxury brought on Intemperance, and Intemperance made a great Change in the Constitution: So that it became necessary to have recourse to other Remedies; and Necessity invented the Way of applying and administering them; and long Experience at length made the Art. They
K 4 had

(*d*) Paralipom. l. 2. c. 16. v. 12.

(*e*) Ch. 21. v. 19.

(*f*) Cap. 28. p. 1. & seq.

(*g*) Marc. c. 5. v. 28. Luk. ch. 8. v. 43.

(*b*) Plato de Repub. lib. 3.

had no good Physician before *Hippocrates*; he was of the Isle of *Coos*, and liv'd in the 84th Olympiad, born in the happy Time of *Greece*, with a superior Genius for Medicine: He was wonderfully skill'd in the Prognosticks of Diseases, and could with great Assurance declare their Course and Termination. He soon found out the Constitution of the Patient; and from the Constitution and Nature of the Air, and Situation of Places, could both judge exactly of the reigning Distempers, and foretel those that were to follow, with their concomitant Symptoms. All the Physicians in the World at this Day admire and give into the *Hippocratick* Practice; but there are few who have equall'd their great Master. I leave to the Learned, especially in Medicine, to determine whether it be true, what some have affirmed of the Writings of *Hippocrates*, viz. That they were only a shapeless Heap of Memoirs, which he put together without Order, as Cases happened, and Matter was offer'd him, but with a Design to revise and digest them (i).

Medicine was not honoured at *Rome*, till the Times of the Emperors. *Julius Cæsar* gave the Freedom of the City to all who professed it (k.) *Augustus* exempted the Physicians from Payments of Taxes. The Ability, or, it may be, the Success of *Antonius Musa*, in curing this Prince of a threatening Disease, brought the Art into great Reputation, and procured them this Privilege (l). About the same time *Celsus* composed eight Books on this Science. The Style of this Author is much commended, as having the Purity of the Language of the
Au-

(i) Sorbón. I et. H.

(k) Sueton. in Jul. Cæs.

(l) Dion. Hist. lib. 53.

Augustan Age. His Precepts are not followed. *Andromachus* of *Crete* dedicated to *Nero* a great Poem on the *Theriack*, which is an Antidote, the Invention of which is attributed to himself. *Marcellus* of *Side* in *Pamphylia* wrote forty two Books in Verse on the Subjects of Medicine, in the time of *Marcus Aurelius*. At that time there was a sort of Alliance between Medicine and Poesy, and the Physicians cultivated the *Belles Lettres* carefully.

Galen of *Pergamus*, Cotemporary with *Marcellus*, had a great Name, both on the account of his Works, and the Practice of Physick. His Method is esteem'd, tho' in the Opinion of some not without Faults. Besides, he only enlarges on *Hippocrates*, whom he explains and puts in a good Light. Those we spoke of last wrote in *Greek*; but *Serenus Sammonicus*, who suffer'd by the Cruelty of *Caracalla*, has left us some Latin Verses on Medicine. *Zeno* of *Cyprus* profess'd Medicine at *Alexandria*, whose School was much frequented. He flourished in the time of *Julian*, and had *Oribasius* for his Disciple. *Oribasius* was born at *Pergamus*, according to some, and others make him born at *Sardis*. At first he made a succinct Compend of all the Works of *Galen*. He afterwards compiled in seventy Books every thing that was found to be good among the best Physicians (*m*). *Photius* puts a great Value on this second Work. We have only at present the first five Books, with the 24th and 25th turn'd into *Latin* (*n*). As also a Summary of the whole Work in nine Books, and another Epitome of Medicine in four Books, dedicated to *Eunapius*. One *Flavius*, who, as *St. Jerome* says,

(*m*) Biblioth. Cod. 217.

(*n*) Printed at Paris, 1555.

says, wrote some *Latin* Verses on Medicine, is said to have liv'd in the Reign of *Honorius* (o). This Author is very little known. *Paulus Ægineta*, his Cotemporary, was more famous. He made an Abridgment of the Works of *Galen* and *Artebasus*, and in After-ages had both his Translators and Scholiasts.

Thus the *Greeks* practis'd Physick over all the *Roman* Empire, and transmitted it to the *Arabians* about the Beginning of the ninth Century. Medicine, far from being improved, grew worse under these new Doctors. They made it depend on general Reasonings, drawn from the Qualities and Temperament of the four Humours, and on the traditionary Knowledge of their Remedies, which they received without Examination. They also mix'd with it a Number of Superstitions; for the Sciences ordinarily take a Tincture of the Manners of the People who cultivate them. The most celebrated *Arabian* Physicians were *Rhazis*, *Averrhoes*, and *Avicenna*. The first dedicated his Works to *Almanzor*; *Averrhoes* was famous at *Cordova*, Anno J. Ch. 1140. *Avicenna* liv'd at that same time. *Thevet* makes him King of *Bithynia* (p). I dont know how he founds his Account; but Crowns are not the distinguishing Marks of the Learned.

Chinese,
Persians.

About the End of the following Age, the *Chinese*, who were at the Court of *Casan*, gave the *Persians* some Lessons of Medicine, as it was practis'd among their Countrymen (q). The *Chinese* were great Physicians at that time, and their Method and Principles are to be seen in the *Chinese Flora* of *Pere Boym* a *Polish* Jesuit,

(o) Vossius de Poet. Latinis.

(p) Vie des Hommes illustres, l. 7. c. 34.

(q) Boyer's Musæum Sinicum.

suit, printed at *Vienna* in *Austria*, 1656, and which is also to be found in the Collection of *Thevenot's Voyages*.

In the mean time, the Study of Medicine ^{The} was renewed in the West. They borrowed ^{French.} from the *Arabians*, notwithstanding the Faults we have taken notice of. This Science was managed at first only by Clerks and Monks, because none but they had any Learning; so that *Fulbert* Bishop of *Chartres*, *Peter Lombard* Bishop of *Paris*, *Obizo* a Religious of *St. Victor*, and *Rigard* Abbé of *St. Denys*, were reckoned among the learned Physicians. The Distinction between the Physicians, Surgeons, and Apothecaries, may be referred to this Time; for it was not allow'd that the Clerks should let Blood, nor keep Shop. This Distinction gave occasion to the Physicians of applying themselves to Speculation only, and of neglecting Observation and Experiments. Universities were form'd, and the Faculty of Medicine was one of the principal. The School of *Padua* became famous in *Italy*. *J. B.* of the *Mount* acquired so great a Reputation in that Academy, that it was said the Soul of *Galen* had pass'd into his Body (*r*). *Bassiano Lando* succeeded him in the Professor's Chair. They both flourished about the middle of the 16th ^{The Ita-} Century: but, about the beginning of the 17th, ^{lians.} *Hieronymus Mercurialis* join'd Medicine with the *Belles Lettres*, in that excellent Treatise of the *Gymnastick Art*.

The *Germans* also had very able Physicians; *Jossius Villicus* is very remarkable for his *Magick*. *Joannes Cornarus*, perceiving that the Humour was turn'd to the Study of the *Ara-*
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(*r*) *Tessier* *Additions aux Eloges de Mons. de Thou*, tom. 1.

bian Physicians, was the first who reviv'd the Knowledge of the *Greek* Physicians, who for several Ages had been forgotten.

In *France*, the good Days of Medicine began with *Fernelius*, that illustrious Disciple of the School of *Paris*. None amongst the Moderns wrote better of the Nature and Causes of Diseases. *Jacobus Hollerius*, *Jean de Gorris*, *Antoine Mizaud*, *Laurentius Joubertus*, so well known for his Book of popular Errors, and *Auger Ferrier*, distinguish'd themselves in that Profession. Those who came after them, began to shake off the Yoke of the Ancients. Instead of having Recourse to Authority, and of holding for certain all that *Galen* and *Hippocrates* said, they were resolv'd to be assured of Facts, and to consult Experience. Those vast Countries, which were not known to the *Europeans* but about two hundred Years ago, furnish'd Medicines which the Ancients had never heard of, and which help'd in a great measure to bring Medicine to Perfection. Moreover, it was well known, that this Art could not always stand, and be treated by general Rules; but that it necessarily varied, according to the Differences in the State and Constitution of the Air, in the Quality of the Ground, in the Quality of the Territory, and in the Quality of the Inhabitants of different Countries. 'Tis this which has given occasion to the Inquiries and useful Researches in the Medicines of particular Countries. *Thomas Bartholini* has given us that of the *Danes*; *Peter Hochzeter* has given us that of the *English*; *John Christopher Derebeck*, that of the *Swiss*; and Mr. *Endtell*, that of the *Poles*.

A N A T O M Y.

ANATOMY offers to our View the Structure of the human Body, discovers and lays before us all its Parts, and informs us of their several Uses. This Science has a common Origin with Medicine, from which it is inseparable; so that those who acknowledge *Æsculapius* King of *Memphis* for the first Physician, must also own him as the first Anatomist. And indeed, according to *Pliny's* Account, the ancient Kings of *Egypt* did not think it below them to dissect Bodies. In process of time, the Priests made a particular Profession of the Arts, and did not neglect Anatomy. The constant Practice of embalming Bodies, not only of Men, but of the Brute-Animals also, which were almost all of 'em sacred among them, made them very skillful, and well acquainted with the interior Structure of animated Bodies. This Help to Anatomical Knowledge was wanting to the *Greeks* and *Romans*, who burnt their Bodies, and satisfied themselves with the preserving of the Ashes of their Dead; nor do we find that they were good Anatomists in the time of *Galen*, that is, in the Reign of *Marcus Aurelius*. Those of 'em, who had a Desire to acquire a more perfect Knowledge of this Art, went to the Schools of *Alexandria*, that they might be instructed by Lessons on the Mummies and Embalming. But Anatomy was as yet in its Infancy, when the other Arts began to be restored; and it is only about 200 Years since it may be said to be well known; for, during all this Interval, they
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applied to the Study of it to good purpose over all *Europe*; and, by necessary Consequence, Surgery has been rendered much more certain in its Operations. Anatomy could not be brought to that Perfection we now see it in, without making new Discoveries, and that by degrees. But they are too many to be narrated here; such a Detail and Exactness would make me transgress the Bounds I have prescrib'd to my self. Let one Example suffice.

Every body knows, that the Blood which runs in the *Vena Cava* is discharg'd into the Right Ventricle of the Heart; that it passes from that into the *Arteria Pulmonalis*, which carries it into the *Vena Pulmonalis*, which discharges it into the Left Ventricle of the Heart, whence it is push'd into all the Extremities of the Body by the Trunk and Ramifications of the *Aorta*, or great Artery. Nevertheless this admirable Mechanism, which is now so well known and visible, was absolutely unknown to the most learned of the Ancients. I know, that some pretend that *Aristotle* knew the Circulation of the Blood: but I know also, that before the 16th Century the Practice of all Physicians contradicted this Pretension, tho' they had submitted their Science and Practice to the *Aristotelian* System. Those who affirm, that *Hippocrates* had any Notion of the Circulation, are forc'd to confess that he rather guess'd at than comprehended it, and that he was far from being able to explain it distinctly.

Servetus understood this Truth, and explain'd it pretty clearly in his Preface to the second Edition of the Book for which he was condemned (t). Sixty Years after *Servetus*,
Har-

(s) Le Pere Rapin, Comparifon de Platon & Aristotele.

(t) Calvin caus'd *Servetus* to be burnt at Geneva, Anno 1553.

Harvey, an *English* Physician, set the Circulation of the Blood in its full Light, and explain'd its principal Circumstances, and was so successful as to persuade the most learned Men of his Time. But as it is a hard Matter to shake off Prejudices, some Physicians could not think of embracing an Opinion which overturn'd all their former Ideas; they wrote against the new System. The famous *Papinus* signalized himself in this Dispute. He made great Efforts to oppose his Treatise of the Diastole of the Heart, to the Opinion which began to prevail: The School of *Paris* was also led by *Papinus*, and emitted and sustained Theses against the new Doctrine. Prejudice blinded the most learned among them. *Gassendi* gave into it at first; the Darkness was at length dissipated, and all Doubts were resolved, when the Communication of the Chyle with the Blood was discovered; and which was about this Time demonstrated: For *Gaspar Asellius* a *Cremoneze*, the famous Anatomist of *Pavia*; discovered the Veins which served to that Communication; they are a fourth Sort of meseraick Veins; and from that Time they were called the lacteal Veins (*u*).

The Throacick Duct, which *Pecket* first found out, was a new Proof of the Truth of the System of the Circulation. The Microscope came in to the Assistance of this Truth, and render'd it sensible. By the Help of this admirable Instrument, the Integrant Parts of the Blood are seen, as so many Globules of a dark red, carry'd in a clear, transparent Liquor, running with Rapidity through the Arteries towards the Surface of the Body of a Fish, and returning more slowly towards the Cen-

(*u*) Vie de Sam. Sorbierre, par Graverol.

Centre by the Veins; and the Bigness of these Globules was determin'd to be about twenty-five thousand Times less than a Grain of Sand. It was also discovered that they were compos'd of six others, which turn'd about their Center (x).

This Truth, set in its full and true Light, made the whole Mechanism of the human Body plain and obvious; as also its Nutrition, and the Source of its Maladies. It made the Combat of the Qualities, and the different Temperament of the Humours, which had been always taken for the Causes of all the Alterations of our Machine, be totally rejected.

The Principle of the Circulation opened a Way for many Experiments: As for Example, the Transfusion of the Blood of an Animal into the Body of a Man, of which so much has been written; and the Insertion or Inoculation of the Small Pox, a Method, which having pass'd from *China* to *Constantinople*, is now successfully practis'd in *England* (y).

Since that Time Anatomy has been taken in Detail, and studied with great Care as to its different Parts. Mess. *Willis* and *Vieussens* have brought the Neurology to Perfection (z). Mess. *Petit* and *Winslow* have made very useful Observations on the Eyes. The Discoveries of Mr. *Senac* on the Structure and Uses of the *Diaphragma* (a), which had been treat- of by so many Anatomists, show, that all has not as yet been discovered, even in the Parts which are most known. The Brain is a remarkable

(x) Observ. de Leuenhock.

(y) Journ. des Sçavans, Avril 1732.

(z) Description des Nerfs.

(a) Hist. de l'Acad. des Sciences.

markable Instance of it. *Sylvius* and the famous *Steno* speak but doubtfully of that Organ, which is so essential to Life, and subject to so many Diseases. It is more easy to refute the Opinion of the Ancients on the Subject of the Ventricles of the Brain, and to dispute the Opinion of *Des Cartes* about the *Glandula Pinealis*, than irrefragably to fix the true Seat of the Functions of the Soul.

Tho' it imports us most to know the human Body, yet we ought not to look upon the Anatomy of the Animals as a Matter of Indifference. A Part whose Structure is obscure in one Species, is oft-times sensible and clear in another Species. And if I may be so bold as to make use of the Expression of a Wit of this Age (*b*), one would be apt to say, *That Nature, by its varying and multiplying its Works, can't hinder itself, sometimes, from betraying its own Secrets.* *Aristotle* and *Eliau* at very different Times have written the History of Animals (*c*): But being more Historians than Anatomists, they have not penetrated into the internal Configuration of the Brutes: They have also oft enough given into the Fable: All the World knows what the Ancients tell of the *Phœnix*, of the *Remora*, of the *Sea-Duck*, of *Colts* and *Partridges* begotten by the Wind, of the *Salamander*, which according to them liv'd in the Fire, and threw out a dangerous Poison.

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The

(*b*) Mr. Fontenelle Hist. de l'Academ. des Sciences. Preface.

(*c*) Aristotle was born in the 99th Olympiad; Elian under Alexander Severus.

The Moderns, who for a long time had been seduc'd by the Ancients, have been by insensible Degrees cur'd of their Prejudices. *Aldrovandus* has successfully written the History of Quadrupedes; *Rondeletius* and *Salviani* that of Fishes; *Belon*, that of Birds; *Redi*, that of Insects. But the Academy of Sciences has made an astonishing Progress in that Kind of Study: *Ann* 1676, it drew up Memoirs from very exact Dissections, that they might serve for the History of Animals. In short, nothing has escap'd the learned Inquiries of these learned Academicians, and of some Foreigners.

Mr. *de Reaumur* has given a particular and clear Account of the Moths (*d*) and Wasps (*e*); Mr. *Malpighi*, that of Silk-worms; Mr. *Houber*, that of the Spiders (*f*); Mr. *Pecupart* has written of the Ant-Lyon (*g*), and of the Ant-Midge; the same Mr. *Reaumur* has written of the Snail, &c. (*h*). *Bonnani*, of Oysters, &c. *Maraldi*, of Bees; *Geofroi* the younger, of Flies. To judge of the Exactness of these able Artists, you need but consider the Description they give of the Eyes of that Insect: They represent them as two immoveable Circles round the Head of the Animal, and compos'd of a prodigious Number of little ChrySTALLINES, rang'd in two cross Lines in form of a Lattice; and, by the Help of a Microscope, they make you observe below, as many optick Nerves as there are little ChrySTALLINES without; and they make the

(*d*) Hist. de l'Acad. des Sciences, 1710 and 1728.

(*e*) 1729.

(*f*) Hist. de l'Acad. des Scien. 1707.

(*g*) Anno 1704.

(*h*) 1705.

the Number of them to amount to several thousands on each Side. If they continue this Scrutiny with the same Care, what rich Discoveries may not we expect in Natural History!

BOTANY.

I Consider the *Israelites* as the first Botanists of the World. *Rachel* certainly believed that the Mandrake was good against Barrenness, when she so passionately ask'd of her Sister those which *Ruben* had brought her (*i*). It signifies nothing to examine, whether this Opinion was well or ill founded; it is enough that they knew, or believed they knew the Virtues of Plants at that Time. *Moses*, by the Order of God, threw a certain Wood into the Waters of *Mara*, to sweeten their Bitterness (*k*). It is needless to have Recourse to a Miracle in this Place; because this wise Man makes use of this Example to show, that we ought not to neglect the Remedies of Medicine (*l*); and adds, that God has made known to Men the Virtue of Plants (*m*). *Solomon*, says the Scripture (*n*), wrote of all Trees, from the Cedar to the Hyssop. The Wisdom, that is, the Knowledge of that Prince, surpassed the Knowledge both of the People of the East, and of the *Egyptians*; Oriental. which proves that the *Egyptians* were skill'd in *Egyptians*.
L 2 Botany.

(*i*) Genes. c. xxx. v. 14, 15.

(*k*) Exod. c. xv. v. 23, 25.

(*l*) Eccles. c. xxxviii. 4, 5.

(*m*) Ibid. v. 6.

(*n*) Kings, I. III. c. iv.

Botany. Besides, since they knew and practised Medicine, they must have known the Simples.

Greeks.

The *Greeks* cultivated this Piece of Knowledge. The Philosopher *Theophrastus*, *Aristotle's* Disciple, has left us nine Books of the History of Plants, and six Books of their Causes. This History is one of the finest Pieces of natural Philosophy to be found among the Ancients. The most learned of the Moderns have admir'd it. *Theodorus Gaza* translated it into *Latin*, and *Julius Scaliger* commented it. We have also the great Work of *Dioscorides* on the Simples. He was an illustrious Physician, a great Favourite of *Mark Antony* and *Cleopatra*. But we have lost the six Books of *Rufus of Ephesus*, who liv'd, according (o) to *Vossius*, in the Time of *Trajan*; and whose Writings are cited by *Galen* and some others.

Germans.

We owe the renewing of the Study of Botany to the *Germans*. *Leonardus Fuschius* render'd himself so famous for Botany, that the greatest Princes of *Europe* honoured him with their Favour and Esteem. The Emperor *Charles* the Vth nobilitated him; and *Cosmus* Duke of *Tuscany* offer'd him an Appointment of six hundred Crowns a Year, if he would settle in *Florence*. The Example of *Fuschius* excited the *Italians* and *French* to apply themselves to that Part of Medicine.

Italians & French.

Mathiolus of *Sienna* made Commentaries on *Dioscorides*, with great Politeness, Judgment, and Industry (p). *Dodonæus* of *Malines* put his History of the Plants in better Order than any who had written before him on that Subject.

(o) Teissier Addit. aux Eloges de M. de Thou, 1566.

ject. The frequent Voyages to *America* and other Countries, not well known before the End of the 15th Century, enriched Botany with new Plants, which were distributed into different Classes. *Piso* brought from *Brazil* an exact Knowledge of the Simples of that Country. *J. Hernandez* gave a short Account of the Plants of *Mexico*. The *Indians* of *Peru* taught the *Europeans* the Properties of the *Jesuits Bark*, or *Quinquina*, which grows in their Country; those of *Cayenne* taught us the Use *Simarouba* (q) against the Dysentery; the Inhabitants of the *Moluccas* have given us in their *Mangoustan* (r) an excellent Specifick for the same Disease.

Nature, always magnificent in its Gifts, has disseminated almost an infinite Number of Plants over the Face of the whole Earth. It has been the Study of the Botanists to range them in Order; for which End they have contriv'd different Systems; that of *M. Tournefort's* is so simple and so convenient, that, it is probable, it will always be approv'd of by all Naturalists. It reduces the Plants into 14 Classes, fixed by as many Figures of the Flowers, which comprehend 673 Genders, determined by the Flowers and by the Fruits taken together; and which are subdivided into 8846 Species of Plants, which characterise their Differences, either by the Root, or by the Stem, or by the Leaves (s). The new Plants which *Mr. Tournefort* brought from the East in 1702, to the Number of 1356, were rang'd of themselves, for the most Part, under

L 3

the

(p) *Gesner. Biblioth. Teissier Addit. Ann. 1576.*

(q) *Hist. de l'Acad. 1729.*

(r) *Hist. de l'Acad. des Sciences, 1730.*

(s) *Elémens de Botanique, 1694.*

the different Genders which he had established; so that he was obliged to create only 25 for the others, without any Augmentation of the Classes.

The Design of Botany is not so much to satisfy Curiosity, as to make Simples understood, in order to the Cure of Distempers. But Botanists would be hard put to it, and their Art become useless with regard to Practice, if they were obliged to know the prodigious Number of Plants there is in the World. It is worthy of the Goodness of God, to bestow on every Country Remedies for the Diseases that for ordinary reign in them; it is the Effect of the Ingratitude of Men, to despise the Riches and Gifts of Nature they have at Home, and to go seek for them abroad. So that we may truly say, that the Perfection of Botany consists in making Men enter into and follow that Order God has established on that Account; and in teaching them to be contented with the Plants that grow under their Eyes, and which they trample under Foot. The illustrious Naturalist, of whom I have said so much, has done this with Regard to the Botany of *Paris* (t); and the famous Mr. *Heister* has entered into his Views with regard to the Botany of *Germany* (u).

Let us not be afraid to reduce this Science to too narrow Bounds: One Plant alone is sufficient to display the Omnipotence of God, and to exercise the Learned for whole Ages. Conceive, if you can, that in a Grain or Seed of the first Tree of a certain Kind, all its Posterity

(t) Tournefort. hist. des plantes aux environs de Paris, 1698.

(u) Dissertation soutenue à He'mstadt, 5 Decemb. 1730.

ity was inclosed: Follow the Motion of the Juices of the Earth, while it opens the Shoots and nourishes the Plants: Bestow your Attention on that wonderful Mechanism, which by the Help of Heat makes the Juices enter into the Vessels of the Root, makes them pass from Vesicle to Vesicle in the Body of the Stem; and after having rais'd them to the Top, by the Vessels, and by the Marrow in the Heart of the Wood, makes them descend partly by Circulation. Take the Fruit of a Tree; a Pear, for Example; distinguish, in the Skin which covers it, its four Coverings; determine, if it is possible, the particular Uses of every one of these Teguments; and you will be forced to acknowledge, that it is infinitely more useful to bound your Knowledge, and make it sure, than to multiply Inquiries by a restless Curiosity.

C H Y M I E.

CHYMIE Works by Motion upon Metals, Vegetables and Animals; and this Motion, which it borrows from different Agents, has for its End, either to join several simple Things together, so that they may make one Compound; or to divide and separate a Compound into several simple Things.

Let us go back to the *Egyptians*, if we would find the Origin of Chymie. *Mercurius*, King of *Thebes*, taught them to reduce Bodies by Decomposition to their three Principles, viz. Salt, Sulphur and Spirit; and the last of

Its Origin
among the
Egyptians.

these Principles has retain'd in the *Greek* Authors the Name of *Mercury*. This Prince knew how to draw from *Cinnabar* that Liquid Metal which bears his Name, and which is found to be the same with Quick-silver; Mines of which began to be discovered about the Middle of the sixteenth Century (x); a Metal which is of very great Use in chymical Operations.

The Kings of *Egypt*, Successors of *Mercurius*, cultivated Chymie. One of them, if we may believe *Theophrastus*, invented artificial Azure. *Seneca* pretends that *Democritus* learned from the *Egyptians* the Art of softening Ivory, and of giving the Pebble the Colour of an Emerald. In the last Times of that Monarchy, *Cleopatra* dissolv'd in an Instant, in prepar'd Vinegar, a Pearl, which she made *Mark Antony* swallow down. It is plain that such a Dissolvent belongs to *Chymie*. The same must be said of the Art of making Glass malleable, which a Workman, as *Petronius* (y) reports, found out in the Time of *Tiberius*; and which perish'd with its Author, by the unaccountable Cruelty of that Prince (z). I know that some Moderns would deprive the *Egyptians* of the Honour of having invented so useful an Art; but I have good Vouchers for what I advance, and among others a learned Academician (a), who under an ingenious Fiction has conceal'd several literary Anecdotes.

Arabians.

The *Arabians* apply'd themselves to Chymie, which perhaps they had taken from the *Greeks*

(x) In 1566 and 1567, according to *Acosta's* Hist. of the *Indies*, Book 4. ch. 11.

(y) Epist. 90.

(z) *Pliny* tells this Fact in a more improbable and obscure Manner, lib. 36. c. 26.

(a) *Abbé Terrasson*, *Sethos*, Book 2, &c.

Greeks with Medicine and Natural Philosophy; they push'd on this Art pretty far. It is true, they spoil'd it by their extravagant Reasonings, by the Superstition of the Operations, by the Vanity of their Promises, and by the pretended Transmutation of Metals.

About the End of the 13th Century, *Ray-mundus Lullius* brought Chymie into *Spain* and *Italy*, which he had learn'd from the *Arabians*. *Cardanus* came long after (b). *Parcelsus* (c) made known this Art to the *Germans*, and *Johanni* to the *French*. Chymie was then very imperfect; and, if I may so say, the True was drown'd in the False. Few natural Properties were known in mix'd Bodies, but they added a great many Imaginary. The Chemists admitted a certain Sympathy between Metals, the Planets, and the principal Parts of the human Body; and that they might not want a Dissolvent in Cases of Necessity, they form'd in their Imagination a pretended *Alkabeft*. The Fermentation of two heterogenous Liquors made them suppose, that there were two Sorts of simple Salts, the one acid, the other alcali, in all Bodies; and made them establish it for an universal Principle, that the Effervescence of those Salts was the occasional Cause of all the Changes in Nature: This Doctrine was wrapt up in a mysterious Obscurity, and hidden under a barbarous unintelligible Language, and probably void of common Sense.

Such was Chymie, when *Glazer*, and after him *Mess. Bourdelin* and *Lemery*, *Homberg* a *German*, and *Boyle* an *Englishman*, dissipated the Darkness of that Art. They reduced it to more simple and true Ideas; they abolished

(b) He dy'd at *Rome*, An. 1576.

(c) He dy'd An. 1541, aged 47.

abolished all useless and impracticable Circumstances, with which the chymical Operations had been purposely charged. In short, they came at length to admit of nothing in Chymistry, but the simple and clear Notions of Figure and Motion. It is easy to see, that the famous Hypothesis of Acids and Alkalis must suffer extremely by this Change. Mr. *Poli* made great Efforts to support its sinking Reputation (*d*), but in vain; for the corpuscular Philosophy was too solidly founded, to be shaken by any thing he could advance in Defence of so weak an Hypothesis.

As Chymie is a considerable Branch in Medicine, and furnishes a great many good Remedies, much used in the Practice of Physick; it is also of great Use in natural and experimental Philosophy; and a great many curious, as well as useful Discoveries are owing to it: As for Example, the Vegetation of Metals (*e*); the *Phosphorus* of *Balduinus* and of *Kunkel*; and the famous *Palingenesia* or Resurrection of Plants, which by warming the Ashes of a Plant, according to certain Rules, makes it, as they say, rise in a Smoak, in the Figure and Colour of the Plant.

(*d*) In his *Il trionfo degli Acidi*, &c. Rome 1706.

(*e*) See the *Journal des Sçavans*, An. 1677.

M A T H E M A T I C K S.

THE Object of Mathematicks is Quantity, viz. That which makes Bodies susceptible of Number or of Measure; and consequently is divided into discrete Quantity and continued Quantity. The first is that Quantity, whose Parts are not ty'd or join'd together, as Number; continued Quantity, on the contrary, whose Parts are connected. And it is subdivided into Successive, as Time and Motion; and permanent, as Extension, which is also called Greatness. So that the End of Mathematicks is either to count or reckon, which belongs to Arithmetick; or to Measure, which is the Province of Geometry.

A R I T H M E T I C K.

PYTHAGORAS was taught the Science of Numbers by the *Egyptians*, and he carry'd it a good Length among the *Greeks*. The famous Table, which gives the Sum of two proposed Numbers, and divides one Number by another, is said to be the Invention of *Pythagoras*. He made use of Numbers and allegorical Applications of them, to make his Disciples enter into the Knowledge of spiritual Things, which is a Kind of Mystery, and will remain a Secret for ever: But, suppose it were known, and that some moral Use could be made of it, of what Use could it be in Arithmetick?

The

The celebrated *Diophantus* came after *Pythagoras*; he was born at *Alexandria*, and apply'd himself to the Solution of arithmetical Problems, but without giving the Demonstration. The *Arabians*. *Arabians* brought this Science to Perfection, and made it much more easy by inventing the Cypher, which is so convenient for multiplying by ten. We are also obliged to them for Algebra, which the Ancients had neglected, for want of Figures or Marks which could express their numerical Calculations. I am of Opinion their Ignorance of Algebra is one Reason why they made so small Progress in the Mathematicks: For the Knowledge of a Mathematician, who is not an Algebraist, is very much bounded. Algebra is as useful for the inventing of all Sorts of Theorems, as for resolving of Problems. It assists the Memory, by marking by the Letters of the Alphabet the Things that are necessary for discovering the Truth, and which otherwise would be very troublesome to retain.

French,
English.

The *French* and other Nations apply'd themselves pretty early to the Study of Arithmetick, which is so indispensably necessary. The *English* cultivated it from the Time of *Bede*, and about sixty Years after that, *Charles* the Great ordered the Bishops, in several Articles of the Capitularies, to teach the young Clerks Arithmetick. It was only about the End of the sixteenth Century, that Algebra was revived by *Stifel* and *Vietus*; they were in a Manner esteem'd as its Inventors; they treated it in a particular Method of their own. But nothing is more surprising than the Progress the Science of Numbers made in the last Age. It is now carry'd as far as it can go.
The

ARITHMETICK.

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The illustrious Mr. *Pascal* invented that admirable arithmetical Machine; by which, without Pen, without Counters, and without Principles, one can make all Sorts of Calculations. Mess. *Mercator*, *Newton*, and *Leibnitz*, have given us the infinite Series of Numbers (*f*), and *Leibnitz* has applied it to Combinations.

GEOMETRY.

NCESSITY is commonly said to be the Mother of Invention in general, and of the useful Arts in particular. *Egypt* has been always believ'd to be the first Mistress of the Arts and Sciences, and especially of Geometry: For the *Egyptians*, that they might distinguish and recover their Possessions, which were every Year laid under Water by the overflowing of the *Nile*, were obliged to measure their Grounds, which also pre-supposes some Knowledge of Arithmetick; and that they might reap the greater Advantage from that bountiful River, they cut the Country into a vast number of Canals, which put them upon the Art of Levelling, which naturally led them to the Knowledge of Proportion; and being a People of active Spirits, and full of Invention, they push'd on their Inquiries in Measure and Proportion, till they at length

(*f*) It is the Method of finding out the Value of the Sum of an Infinity of Numbers, according to some Rule or Order.

length form'd that System, which is the Science of Proportion of all Kinds, represented by Lines; and which is call'd *Geometry*, from the original simple measuring of Land.

Mercury of *Thebes*, to prevent the Consequences of a second Deluge, ingrav'd upon Pillars the Principles of this Art, and set 'em in those subterraneous and winding Caves, which are as yet to be seen in the higher *Egypt*, and which are call'd *Syringes* (g).

Thales, who was of *Phœnicia*, brought the Knowledge of Geometry from *Egypt* into *Greece*. He was the first who demonstrated, that the Angle in the Circumference of a Circle, subtended by the Diameter, is ever a Right Angle. This Truth gave him the Occasion of finding out the other Properties of a Circle, and conducted him to Trigonometry; that is, to say, to the measuring of inaccessible Distances, by the means of Triangles. *Pythagoras*, who, as *Jamblichus* (h) says, had learn'd a great deal from the Pillars of *Mercury*, taught his Disciples Geometry. He made use of it to explain sensible and material Things; as he made use of Numbers and Arithmetick to make them conceive things which don't fall under the Senses. It's said, that he found out that famous Proposition of the *Hypoteneuse* (i) of the Triangle-Rectangle compar'd to the two other Sides; and that he offer'd up a Hecatomb, to (k) give Thanks to the Gods for the Demonstration.

Euclid,

(g) Ammian. Marcel. lib. 22. Marsham Chron. Can. Ægyptiac.

(h) De Myst. Ægypt. l. 1.

(i) It is the opposite Side of the Right Angle.

(k) Sethos, liv. 2.

Euclid, who liv'd in the Time of the first *Ptolemy*, and whom we must not confound with another Philosopher of that Name, the Disciple of *Socrates*, made himself famous by his Elements of Geometry ; which are a Chain of Theorems and Problems, in consequence one from another, and demonstrated by the first Principles. *Archimedes* was an hundred Years after *Euclid*. He wrote Treatises on the Sphere, on the Dimension of a Circle, and on the Quadrature of the *Parabola*. The Invention of the Spiral Line, or *Helice*, is ascrib'd to him, of which he also wrote.

Aristæus, who is call'd the Ancient, to distinguish him from a later *Aristæus*, wrote Five Books of solid Places ; that is, of the Three Conick Sections, which are intirely lost. It is not known exactly, in what time this Geometrician liv'd. Some make him Cotemporary with *Euclid*. *Apollonius* of *Perga* in *Pamphylia*, who came afterwards, collected all that *Aristæus*, *Eudoxus* of *Cnidas*, *Menecmus*, *Conon*, *Thrasideus*, and some others, had written before him. It was he who first gave to the Three Conick Sections the Names of *Parabola*, *Hyperbole*, and *Ellipsis* ; Names which mark their distinct Characters. Of the Eight Books of this Collection, we have only the first Four in *Greek* : The three following were translated into *Latin* by *Abraham Ecchellenfis*, from an *Arabian* Manuscript of the tenth Age ; the eighth is lost. I pass over the other Geometricians ; *Serenus*, Author of the *Cylindricks* ; *Theodosius*, Author of the *Sphericks* ; *Theon*, *Pappus* of *Alexandria*, &c. They are well enough known to the Mathematicians ; and it is of no great consequence to others to know 'em.

The

The Learned of the 16th Century study'd only to understand the Ancient Geometricians, and to make others understand them by their Versions and Commentaries. *Nicolas Tartalea* and *J. Pelletier* apply'd themselves to explain *Euclid*. *Elias Vinetus* translated *Pselus* and *Proclus*. *Fridericus Commandin* made Notes on *Apollonius Pergæus*.

At that time it was thought impossible to surpass the Ancients, or even to equal them: As if the Moderns had neither good Eyes enough to see, nor Spirits for Reasoning justly. This unjust Prejudice began to wear off about the Beginning of the 17th Age: Some Learned Men undertook to restore to the Ancients what the Injury of Time had robb'd them of. *Franciscus Vietus* and *Marinus Getaldus* of *Rbagusa* brought *Apollonius* to Life again, and endeavour'd to make out what he had, or should have said, in that which was wanting of his Works. And a long time after them, M. *Viviani* follow'd their Example, with regard to

1659. *Apollonius* and *Aristæus*.
1673.

The Moderns, thus instructed by the Ancients, have carry'd their Inquiries and Knowledge in the Sciences much farther than they had done. The Conicks of Mr. *de la Hire* have eclipsed all that ever appear'd before on that important Subject.

The Works of the River *Eure*, and the Canal of *Languedoc*, are two sorts of Wonders in the Art of Levelling. Has ever practical Geometry done any thing so fine, as to conduct the Waters of a River for more than twenty Leagues; and to raise them to the Height of an hundred and ten Feet? Or has it ever done any thing so useful, as the joining of two Seas
by

Tho' Geometry has for ordinary in View, the acting and working in material Subjects ; yet it affords a great deal of pure Speculation, and makes us think justly ; and is much more proper for conducting our Reason, than all the syllogistick Rules of *Aristotle* : It strengthens and enlarges the Mind : It even helps to form an Orator, if we may believe *Quintilian* (l). In short, Numbers and Lines are, perhaps, the only certain Knowledge allow'd us by the Light of Nature. These Motives have made our Geometricians, not only enrich their Art by their Discoveries, but likewise invent a new Method of conducting to the Truth, much more sure and easy than that of the Ancients.

Pere *Cavallieri*, when he publish'd his *Indivisibles*, prepar'd the Way to the sublime Geometry of Infinites. Let us mark this Date : It will be famous for ever. It was in the Year 1684, that the Face of this Science chang'd all at once. Mr. *Leibnitz* in Germany invented his *Differential Calcul* ; M. *Newton* in England, publish'd his *Method of Fluxions* : And these two Mathematicians gave under different Names a new Analysis preferable to the ordinary Analysis, and which certainly was the same : For the Quantities which Mr. *Leibnitz* call'd *Differences*, M. *Newton* call'd *Moments*, or *Fluxions*. The Essays of this transcendent Geometry, which appear'd at that time in the Journals, moved several Learned Men to inquire into the

M

Mystery.

(1) Instit. Orat. lib. 1. cap. 18.

Mystery, and to dive into the immense Subject of Infinite. The Marquis *de l'Hospital* was the first in *France* who explain'd the Geometry of Infinites. This illustrious Man joyn'd a profound Knowledge to a happy Birth, and communicated without reserve, Treasures till then unknown, in his excellent Book of the *Infiniment Petits*, printed at *Paris* 1696.

This new Art, which had its Birth in the North, advanc'd there towards Perfection every Day. The Geometricians, by their *Differential Calcul*, had only hitherto made finite Quantities descend to their Infinitely little. The Difficulty was, to make the Infinitely Little remount to the Finite Great, or Quantities. This is what they call'd the *integral Calcul*. Mr. *Bernoulli*, Professor of the Mathematicks at *Bale*, gave the first Essay of it *Anno* 1691, in the Rectification and Quadrature of two different kinds of Spirals. M. *Carré* march'd in the Steps of this Learned *German*, and publish'd, *Anno* 1700, the first Complete Treatise that was written on this Subject.

As the Analysis of the Infinitely Little regards curve Lines; it is no wonder, that there are considerable Discoveries made in the Theory of 'em. It was by the same Key, that Monsieur *Bernoulli* found his *Cicloïdale*, his *Caustick*, his *Developée*, and his *Antidevelopée*, and his *Pericaustick*, all of 'em spiral Logarithms, like to what they are generated from. By the same Method, M. *Newton* found out sixty six new Curves of the third Order, or, whose Equations mount to the third Degree. Mr. *Stirling* augmented the Number of Curves to four Kinds; and some Years since, Mr.

Picole

Picole has illustrated what concerns them, in a very instructive Memoir, which is to be seen in the History of the Academy of Sciences.

Every Body knows, that the New Geometry of Infinites did not take at first with all Geometricians; Prejudice, and an Apprehension of its being very difficult, made many for some time forbear applying to it. But People have now laid aside these Prejudices, and are convinced, that it is more easy to learn this new Method, than to go far into the Mathematicks without its Help. Besides, the new Elements publish'd by a famous Academician, and approv'd by that Learned Body, have made the new Geometry much more easy (*m*).

We see therefore, what are the Parts which compose the simple Mathematicks, *viz.* Arithmetick and Geometry, which are mutually assistant to each other, and don't depend upon other Sciences.

We proceed now to the *Mix'd Mathematicks*, which treat of the Properties of *Quantity*, as it is found in sensible Subjects, and to which the Principles of Arithmetick and Geometry are apply'd.

(*m*) *Elemens de la Geometrie de l'Infini*, par M. de Fontenelle.

COSMOGRAPHY, ASTRONOMY.

OF all the Objects which fall under the Observation of our Senses, that which strikes us most, is the Universe, or Visible World. Nothing seems more worthy, nor more proper for exciting the Curiosity of Men, than that Disposition, Number, Greatness, the Distances and Movements of those Bodies which the Universe contains in its Imensity. To come at this Knowledge, Astronomers have invented and supposed divers Systems, which might serve to fix their Ideas, and guide them in the Explication of the *Phænomena*, or Appearances in the Heavens. But before we come to the Detail of those Systems, let us consider the Origin of Astronomy.

The *Egyptians*. The *Egyptians* are, with good Reason, said to have been the first Astronomers. They liv'd under a Sky always serene: Their Climate, by a Proximity to the Equator, made them discover all the Stars, which made their Revolutions almost straight over them.

It may be supposed, that the Shepherds having these Advantages, and who passed whole Nights in the Fields, gave the first Hints, or rough Draught of this Science; and that the Learned afterwards carry'd it on (*n*). The first thing they thought of in these

(*n*) Sethos, liv. 2.

these Matters, according to *Herodotus* (o), was, to regulate the Year according to the Course of the Sun. Besides, if it be true, as it is not to be doubted, that *Thales* and *Pythagoras* learn'd Natural Philosophy in *Egypt*; it is very probable, that these Philosophers took their famous Hypothesis of the Motion of the Earth from the *Egyptians*.

Tho' all the Priests of *Egypt* were vers'd in Astronomy, those of *Thebes* surpass'd the others in that Science: They were foolishly addicted to Judicial Astrology; but even that silly Imagination led them to more sure and certain Knowledge.

Belus, who was born in *Egypt*, according to *Diodorus*, establish'd a Colony of the *Egyptians* in the Country about *Babylon*. They communicated the Taste for Astronomy to the ancient Inhabitants of the Country; and the Temple of *Belus*, their Chief, who was deify'd after his Death, was the Place where they constantly observ'd the Course of the Stars.

The Mathematical Sciences have a close Connection with one another: An Astronomer must be also an Arithmetician and a Geometrician. But the *Chaldeans* were only as yet in the first Elements of Geometry and Arithmetick: They had not the Knowledge and Use of Logarithms (p), which save us the Trouble of so many numerical Multiplications and Divisions: So that they were oblig'd to make general Tables of Calculations, both with respect to Numbers, and to

The
Chaldeans.

M 3

Tri-

(o) *Histor. B. 2.*

(p) *Numbers of Arithmetical Progression, which serve as Expositors to the Numbers of a Geometrical Progression.*

Triangles Rectilineal and Spherical. They continu'd those Tables for many Ages : For the Observations which the *Babylonians* gave to *Callisthenes* for *Aristotle*, went back 1903 Years, if we may believe *Simplicius* (q); which brings us back just to the Time, which some Chronologists assign to *Belus* (r). The ancient Observations were probably neglected afterwards, as less exact ; and Astronomers chose rather to hold by those that had been made since the Time of *Nabonassar* : At least, it is certain, that the *Greeks* knew none prior to that *Æra*. And the 490 Years which *Berosus* and *Critodemus* in *Pliny* give to the *Chaldeans*, that is, to the Second *Babylonians*, come very near to the same Epoch.

The
Hebrews.

Abraham, who was of *Chaldea*, passed in his own Country for a great Astronomer (s); and he probably taught that Science to his Children. In the Time of *David*, there were, says the Scripture (t), in the Tribe of *Issachar*, Men of Experience, and wise, who were capable of discerning the Times, and of prescribing to the *Israelites* what they ought to do. The Interpreters understand by this, the Observation of the Stars, necessary for regulating the Feasts, and all the Order of the Year. But as their Sacred Year was Lunar, the Inspection of the New Moon was sufficient for that : And perhaps they push'd their Astronomical Inquiries no farther.

The
Greeks.

The *Greeks*, who liv'd for the most part by Trade, cultivated with Care this Science, which

(q) He cites *Porphiry*.

(r) *Bosluet Discour. sur l'Hist. Univers. Part 1.*

(s) *Joseph. Antiq. l. 8. Euseb. Præp. Evang. l. 9.*

(t) *Chronicles, Book 1. c. 13. v. 32.*

which is so necessary to Navigation. *Chiron* gave them the first Notion of it. This Father of the *Grecian* Astronomy, according to the Supputation of a skilful Chronologist (*z*), liv'd 1500 Years before Jesus Christ; that is to say, in the first Times of *Greece*. *Thales* added a great many useful Discoveries in Astronomy, to those which he had borrowed of the *Egyptians*; and particularly, the Observation of the Equinoxes and Solstices (*a*), and that of the Course of *Urfa Minor* about the North Pole. *Anaximander*, his Disciple, knew the Greatness of the Sun and Moon; and he measured the Distance between these two Stars and the Earth; and he discovered to the *Greeks* (*b*) the Obliquity of the Zodiac (*c*). It is true, he differ'd, and separated from his Master, as to the Doctrine of the Diurnal Motion of the Earth. As to this, he paid too much Deference to his Senses, and establish'd the Opinion of the Earth's Immobility, and of the daily Revolution of the Sun about it.

We have taken notice elsewhere, of the Care that *Melon* (*d*), and after him, *Calyppus* took to reform the *Greek* Calendar; and of what use were their famous Cycles of 19 and 76 Years. *Eudoxus* (*e*), Cotemporary of *Melon* and *Hipparchus*, who liv'd three hundred Years after *Eudoxus*, adopted the System of *Anaxi-*

M 4

mander

(*x*) M. Ferret, Observ. sur l'Index Chron. de Newton.

(*a*) Cic. de Natura Deorum.

(*b*) Angle of 23 Degrees and half, contain'd between the Ecliptick and the Equator, call'd, The Sun's greatest Declination.

(*c*) Plin. Nat. Hist. B. 2. c. 8.

(*d*) Princ. de l'Hist. Part 1.

(*e*) He dy'd 368 Years before Jesus Christ.

mander. These Astronomers placed the Earth in the Centre of the Universe, and wrapp'd it up in three different Regions of the Air; the Low, bounded by the Reflexion of the Rays of the Sun; the Middle, where the Clouds are; and the Higher, above which they placed the Region of Elementary Fire, a luminous Body, sovereignly hot. Then coming to the Disposition of the Orbs of the Planets, they put first that of the Moon; and above the Moon, they put the Orbs of *Mercury*, *Venus*, the Sun, *Mars*, *Jupiter*, and *Saturn*. They supposed, that all these Orbs were so many Spherical Bodies, perfectly diaphanous, and inclosed one within another.

The Use of these Heavens, according to these Philosophers, was, to explain the proper Motion of the Planets from West to East. *Eudoxus* and *Hipparchus* placed the Fix'd Stars, which were higher than all the Planets, in the Firmament, as in a Vault concentrick to the Earth. They made this Eighth Heaven the first Mover, which carry'd about with it all the inferior Heavens, to make them move in 24 Hours from East to West.

Ptolemy, who appeared under the Empire of *Valerian* and *Marcus Aurelius*, in the second Century of Christianity, follow'd the same Hypothesis: But finding that this Eighth Heaven seem'd also to move, tho' very slowly, he added a Ninth Orb, to serve as the first Mover; and by this means he endeavour'd to explain the daily Motion of the Stars.

This is not all. They wanted to find out the Cause of the slow Motion of the Fixed Stars, which only advance one Degree in 72 Years, according to the Order of the Signs; whence arises the Precession of the Equi-

quinoxes. It is this which gave occasion to some modern Astronomers to imagine a Tenth Heaven, which they call'd *The First Chrystalline*. Afterwards, King *A'phonsus* and *Regio-montanus* observ'd in the Firmament a third Motion, which the Ancients had never thought of. By this Motion, which was call'd that of *Trepidation*, and for the sake of which, the supposed a Second Chrystalline Heaven, the Ecliptick seems to be mov'd, by advancing a little from one Pole to the other ; and the Equinoxes seem also to be mov'd, by advancing a little from East to West, and reciprocally from West to East.

Such is the System of the World, followed by most of the Ancients, and re-establish'd among the Moderns, by *Purbach*. I say, by the most part : For *Philolaus*, *Aristarchus*, and other Astronomers follow'd a very opposite System. These two Systems accounted equally for the Periodical Return of the Stars. But if the one seem'd to be conform to the Appearances, the other, being infinitely more simple, seem'd to follow Nature more closely : Nevertheless, Sense carry'd it against Reason ; and even to the sixteenth Century, the most imperfect System was the most prevailing. Then *Copernicus*, fortify'd by new Proofs drawn from Observations, renew'd the System of *Philolaus*, which is this :

The Sun is in the Centre of the World ; *Mercury*, *Venus*, the *Earth*, *Mars*, *Jupiter*, and *Saturn*, turn not only about their own Axis, but also about the Sun, from West to East ; and the different Revolutions of these Six Planets, are in proportion to their different Distances from the Sun : But the Circles which they describe, far from being concentrick

trick to the Sun, cut the Ecliptick in different Points. This Astronomer excepts none of them, but the Earth, whose Centre never leaves the Ecliptick. The Moon is not in the General Rule ; she moves, and describes her Circle about the Earth. In the last place, *Copernicus* places the Fix'd Stars above the Planets ; he gives them no Motion at all ; and he does not determine their Distance, because they have no Parallax (*f*).

The Learned World was divided again between these two Systems, and every body followed his own Opinion ; when (*g*) *Tycho Brahe* undertook to reconcile the Astronomical Facts (which no body doubted of by that time) with the common Opinion of the Immobility of the Earth. He supposed with *Copernicus*, that *Saturn*, *Jupiter*, *Mars*, *Venus*, and *Mercury* move about the Sun. But with *Ptolemy*, he made the Stars move about the Earth, which he made the Centre of the Universe. This middle System had few Followers : New Observations discredited it, and made the System of *Copernicus* prevail. It was observ'd, that an East Wind blew continually between the two Tropicks, both in the one and the other Hemisphere. It was likewise discover'd, that *Jupiter* and *Mars* turn'd about their Axis in regular times ; which are natural Proofs of the Opinion, which makes the Earth turn upon its Centre from West to East.

The first of these Proofs was owing to Navigation round the Globe. The second is owing to the Telescope, which was then invented.

(*f*) *The Distance between the true and apparent Place of a Star.*

(*g*) *He was born An. 1546. and dy'd in the Isle of Huen, An. 1602.*

vented. It made us observe the *Milky Way*, which *Aristotle* took for a Meteor, as a Heap of an infinite Number of little Stars; and so made us conceive the Immensity of the heavenly Spaces. By the Telescope were discover'd the thirty little Planets, which make their Revolution about the Sun. *Galilæus*, by the help of the Telescope, was the first who observ'd the four Satellites of *Jupiter*. *M. Cassini* since has calculated the Motions and the Eclipses they make *Jupiter* suffer, by getting between him and the Sun; and the Eclipses which they suffer themselves, by falling into *Jupiter's* Shadow. This important Discovery was follow'd by that of the five Satellites of *Saturn*. *M. Huygens* observ'd the fourth at first, and made the Ring which goes round the principal Planet be taken notice of; but the other Satellites were discover'd by *M. Cassini*. It was from the fix'd Spots, that this Astronomer had regulated the Course of *Jupiter*. He taught the Way of finding upon the Globe of the Sun, the true Position of the Spots which *Galilæus* had remark'd in it. These Spots made them perceive the Error of *Copernicus*, who believ'd the Sun to be immoveable, and make it evident that he turns upon his Axis. *M. Cassini* made the Eclipses of the Sun serve for finding the Longitude; an ingenious Invention, which also astonish'd the Learned. He is the first who saw, or, at least, who taught others how to see, the Light of the Zodiack, which becomes hairy, when it is perceiv'd in presence of the Sun.

The Help of the Telescope, tho' great, could not have brought Astronomy to that Degree of Perfection we see it in at present, without

1668.

1655.

1671

1684.

1661.

1683.

As in

1706.

without an Instrument more proportionate to the Greatness of the Heavens and the Stars, which this Science ought to measure, than a Quadrant. The famous Meridians of *S. Petronius* of *Bologna*, and of the Observatory at *Paris*, are this Instrument. That of *Petronius* was traced out in 1575, by *Egnazio Dante*, a *Dominican*. But *M. Cassini* finding it defective, drew a new one about the Year 1655. The Meridian of the Observatory, begun by *M. Picard* in 1669, continu'd by *M. Cassini* and *de la Hire* in 1683, was at length carry'd to the Foot of the *Pyrennees* in 1700. The Advantages reap'd from these Meridians, are very considerable. These famous Monuments of Practical Astronomy have decided the great Question concerning the Variation of the Swiftnefs of the Sun. *Kepler* and *Boil- laud* believ'd it in some measure real; all others, Ancients as well as Moderns, believ'd it only apparent. The Decision is in favour of the First.

Moreover, the Observations made by *S. Petronius* have procur'd Tables of the Sun, more certain than those that were known before. They have given greater light into the Refractions, which increase the apparent Height of the Stars above the Horizon, than the famous *Tycho*, their first Observer, knew. They have demonstrated the Ellipticity of the Solar Disk at the Horizon (*b*). In short, by their Help, Astronomers have come to determine at ten Seconds, the Parallax of the Sun, and by that, to set him at a greater Distance from

(*b*) This Ellipticity was observ'd by *Father Skeiner*, and afterwards by *M. de Mairan*.

from the Earth, than former Astronomers did (i).

Navigation has enrich'd Astronomy with a great Number of Stars of the Antartick Pole, which compose twelve Southern Constellations, unknown before the Use of the Compass. But the Ancients had under their Eyes and Observation very remarkable Stars, which made 'em run into great Mistakes. The Comets, according to them, were nothing but a fortuitous Collection of Light, liable to a sudden Dissipation. They look'd upon these Bodies so fit for embellishing Nature, and augmenting the Pomp of the Universe, if not the Cause, at least as the Sign of the divine Displeasure. These false Notions had infected the Moderns, and prevail'd always, and every where, till Astronomy was brought to Perfection, and destroy'd them.

Gassendi endeavour'd to cure Men of that Fright that *Phænomenon* threw them into. *M. Bernoulli*, *Cassini*, and many others, have prov'd, that Comets are permanent Bodies, and that they have a certain Course and Rout. But can their Returns be foretold? And can the same Comets appear again after certain Times? 'Tis an Opinion, which however probable it may be, is not as yet very evident. The Appearance of these Stars is very rare; and 'tis but a few Years since the way of knowing 'em has been chalk'd out. There is no Science exhausted; there are some Discoveries still to be made. And the Theory of Comets is yet a *Vacuum* in Astronomy.

This Art has been cultivated by all polite Nations. The *Chinese*, among others, have ^{The Chinese.} always

(i) It is certain, that the Sun is at least 23 Millions of Leagues from the Earth.

always pass'd for great Astronomers. If they may be believ'd, *Fouki*, the Founder of their Empire, was the first who taught this Science: But without depending on uncertain Tradition, it appears, that from the Year 2155, before J. C. the *Chinese* follow'd certain Rules for calculating Eclipses; and that they determin'd the Equinoxes and Solstices by the Motions of the Stars. They had also in those Times two sorts of Years; the Solar, of 366 Days, 6 Hours; and the Lunar, which they made to agree with the Solar, by making use of Inter-calations. Astronomy was neglected among 'em from the Year 480, before J. C. till the 66th. Then *Licou Hin* made an entire Course of Astronomy, under the Name of the *Three Principles*. This Work marks the Number and Arrangement of most part of the Stars. He gives a Table of the Eclipses of the Sun, and some Observations on the Comets; but he has nothing concerning the Longitude, or Latitude, or Declination of the Stars.

In the Year 164, of the Christian *Æra*, Strangers taught the *Chinese* the Use of the Sphere, and of the Celestial Globe. *Ju Hi*, under the Dynasty of the *Tfins*, discover'd the proper Motion of the Fix'd Stars: But he fell into a considerable Error, by believing the Polar Star to be immoveable. It was not till the 5th Century, that this Star was observ'd to turn like others from East to West; and that it was distinguish'd by the fixed Point, call'd the *North Pole*. In 806, the *Chinese* brought the Compass to perfection. In the 13th Age they began to study Spherical Trigonometry. Their Astronomy receiv'd a great Check afterwards; and the *Mahometans*, who manag'd

nag'd it after the Beginning of the Dynasty of the *Ming*, made vain Efforts to re-establish it. At last it gave way to the *European* Astronomy, which the *Jesuites* introduced into that Empire (*k*).

We have seen, that the *Mahometans* had *Mahometans* some Notion of Astronomy : The most Learned of 'em were in *Persia* ; among whom is reckoned the famous *Nassiroddin*, who liv'd about the Middle of the 13th Age ; and the *Arabian* *Rexedollin*, who compos'd a Chronology *Anno 1295* (*l*). They took this Piece of Learning from the *Greeks*. But the *Indians* had *Pythagoras* for their Master, whose *Indians* Tenets they follow to this Day, and the Way of Calculating the Motions of the Celestial Bodies. We see by the Calendar which *M. de Loubere* brought from *Siam*, that all the Astronomy of those People, who are exact enough otherwise, is reduced to the Additions or Subtractions, Multiplications or Divisions of certain Numbers (*m*).

(*k*) *Observ. Mathem. Astron. &c. rediguées par Souciet, Tom. 2.*

(*l*) *Bayer. Musæum Sinicum.*

(*m*) *Regles de l'Astronomie Indienne, dans le 2. tom. de la description du Royaume de Siam, par M. de la Loubere.*

G E O G R A P H Y.

GEOGRAPHY, or the Description of the Earth, is a natural Consequence of Astronomy: For it is, by applying to the Terrestrial Globe the Points and Circles traced upon the Celestial Globe, that Geographers come to fix the principal Parts of the Earth.

It is believ'd, that *Sesostris* invented Geographical Charts, to describe his Empire, after all his Conquests (*n*). This Fact being suppos'd, the *Egyptians* are the first who made an Art of it, which they afterwards transmitted to the *Greeks*. I have elsewhere spoke of both the *Greek* and *Latin* Geographers:

Parallel of
Ancient
and Mo-
dern Geo-
graphy.

I will therefore confine my self here to some Reflections on the Ancient Geography, compared with the Modern. In both one and the other the Principles are the same, except a few Circumstances, which it is fit to take notice of.

1mo. The Ancients distinguish only Seven Climates; the Moderns admit of Twenty four: For the Countries which are beyond the Seventh Climate were formerly unknown, or were thought to be uninhabited. Frequent Voyages to the North have cleared up that Mistake, and carried on Geography towards Perfection so far.

2do. The

(*n*) Bossuet, Hist. univ. Part 3. Art 3.

2^{do}, The Ancients put the first Climate at *Meroe*, a Town in *Ethiopia*, where the Day is of 13 Hours length, instead of beginning it, as we do, at the Place where the Day is 12 Hours: They certainly believed, that the Countries under the Equator were as little inhabited, as those which approach the Polar Circle. Experience has remov'd that second Prejudice, which some Moderns, too slavish Imitators of the Ancients, had still retain'd.

3^{tio}, The Position of the first Meridian has varied at different Times. *Ptolemy* places it at the *Fortunate Islands*: The *Spaniards* have plac'd it at the *Azores*: We make it pass thro' the Island of *Fer*, the most western of the *Canary Islands*.

The Errors which arise from the Situation of Places and their Distances, are of greater Consequence, than the Mistakes which I have taken Notice of, of which please to take some Instances.

The common Opinion of the *Greeks* was, that *Delphos* was the Middle of the Earth. This Opinion had nothing for its Foundation but an old Fable, which, when well understood, meant nothing more than that *Delphos* stood in the Midst or Middle Part of *Greece* (o).

2^{do}, *Ptolemy* confounds the *Fortunate Islands* (p) with the *Gorgades* (q). It is certain, that the *Fortunate Islands* lie between the 20th and

N

30th

(o) *Mad. Daciere* l e n. sur l'Intermede du 3. acte de l'Oedype.

(p) Les Canaries.

(q) Les isles de cape Verd.

30th Degrees of North Latitude ; yet this Geographer puts them between the 10th and 20th, which is the true Situation of the *Gorgades*.

3^{to}, The Ancients reckon but 378 of those Isles, which are called *Maldives*. Some Moderns, on the contrary, make them amount to 1200.

4^{to}, *Damastes*, in *Strabo*, affirms, that the Strait of *Babelmandel* is shut: The Error on this Head is so much the more remarkable, that it is by this Strait that the Eastern People have for a long time carry'd on their Commerce.

5^{to}, The Ancients, who always diminish the cælestial Spaces, give by a contrary Excess to these Countries, that are considered from West to East according to their Longitude, an Extent which they have not.

But there is no Problem of Geography, which has been more agitated than the famous Question about the Origin of the *Nile*. The Ancients were divided about it; the one Party believ'd that this River had its Source in the Mountains of *Atlas* ; and that they might conduct it into *Egypt* by the Northern Frontiers of *Ethiopia*, they were obliged to make it cross over all *Africa*. The other made the *Nile* to rise out of the Mountains of the Moon, ten Degrees, according to them, beyond the Equator, in the Country call'd that of the *Antichthonos*, which they plac'd in *Africk*. We may justly be surprized at the Absurdities which arise from this System; for unluckily they divided *Africa* on the Eastward towards the Equator,

quator, and yet they plac'd their *Antichtones* beyond that Sea. The *Nile*, therefore, according to their System, must have cross'd the Ocean, without mixing Waters with it, to fall down afterwards into *Egypt*.

The Moderns, setting the Ocean at a Distance from the eastern Coasts of *Africk*, have made the Source of the *Nile* 22 Degrees on this Side the Mountains of the Moon, and have plac'd it in a Country of *Ethiopia* call'd *Joiama*, 12 Degrees this Side the Equator. We owe the true Notion of the Rise of this River to Pere Pais a *Portuguese* Jesuit, and the new Geographers differ very little from his Opinion (r).

The Moderns.

The *Arabians* follow after the *Greek* Geographers. The most famous is *Abulfeda* of the illustrious House of *Jobides*, and descended from *Aladil* the Brother of Sultan *Saladin*. *Abulfeda* was also invested with the Dignity of Sultan, and he died 60 Years of Age, in the Year 733 of the *Hegira*.

Of the 28 Tables which compose his Geographical Canon, we have none but three. The first was published by Mr. *Hudson*, the 25th and 26th have been published by *J. Grævius*. Let us observe by the Bye, that *Abulfeda* don't always follow the *Greek* Geographers: He makes his first Meridian pass by the most prominent Cape of the western Side of *Africk*, ten Degrees different from the first Meridian of *Ptolemy*. Besides, he makes use of a Day's Journey of 24 Miles to measure the Distance of Places by, little agreeing in this with the *Nubian* Geographer, who makes his Day's Journey 30 Miles.

N 2

The

(r) M. L'abbé Perrasson, *Sethos*, l. 5.

The Discovery of
America.

The Moderns owe the great Progress they have made in Geography to two principal Causes, viz. the Discovery of *America*, and the Invention of Telescopes. *Christopher Columbus*, a *Genoese*, observing the West Wind to blow pretty equally for many Days from the *Atlantick Ocean*, bethought himself that there must be Land in that Quarter whence the Wind blew. With this Thought he parted from the Port of *Palos* in *Estremadura* the 3d of *Aug.* 1492, with 3 Ships which he got from *Ferdinand* and *Isabella* of *Spain*. After a Navigation of two Months and twelve Days, he discovered the Isle of *Guanatiani*, one of the *Lucca's*; after that the Isles of *Cuba* and *St. Domingo*. In three Voyages, which he made in 1493, 1494, 1504, he discovered a Part of the *Antillæ*, the Isles of *Trinity* and *St. Margaret*, *Cubagna*, and the Coast of *Veragua*. Much about that Time *Americus Vespasius*, a *Florentine*, pretended to have been the first Discoverer of the new Continent; and he call'd it by his own Name (s). The new Navigators penetrated into *Terra firma*; and in a few Years the new World was almost as well known as the Old.

The second Epoch of the Perfection of Geography is still more Modern. In the Beginning of the last Century, *Jacobus Metius* made the first Telescopes; with this Help the Observators, whom the Academies of *London* and *Paris* sent into different Parts of the Earth, took the different Points of Longitude, in as easy and sure a Manner, as the Points of Latitude were taken formerly: On these Observations,

(s) Hist. des Isles Espagnoles par le Pere Charleroi, part 1.

servations, Mess, *Cassini* and *de Chazelles* made the Planisphere of the Observatory of 27 Feet diameter; and it was by the Help of this Geographical Chart, the greatest, best laid out, and most exact which had ever been seen, that Mr. *de L'Isle* made his Map of the World, which will always serve as a Model to Geographers.

The Chart of Mr. *de L'Isle* gave the Atlantic and *South Seas* their true Dimensions: Besides, it corrected the gross Errors into which all who had preceded him had fallen, with Respect to the Distance of the Coasts of *Africa* and the Coasts of *South America*, not to mention many other Points of Geography. Mr. *Damville*, Heir to the Knowledge of this learned Man, treads faithfully in his Steps; and we may venture to say, he is one of the most skilful Geographers now-a-days in *Europe*, as appears by all the Charts, with which he has enriched the Commonwealth of Learning, and by several Writings which he has published on that Subject.

NAVIGATION.

THE Art of Navigation is no less ancient than the other Arts: According as Men multiply'd, and the Earth was peopled after the Deluge, they pass'd the Rivers, they cross'd the Seas. The *Egyptians*, who were good Astronomers, observed those Stars whose Course could be of Use to Navigation: Experience instructed them, and *Mercurius Trismegistus* reduced into Precepts and Rules those Scraps of Knowledge they had learned by Experience.

In these first Times, the Arts were communicated from neighbouring to neighbouring People. The *Phœnicians* taught the *Egyptians* the Art of Sailing; they were the first who made Use of the *Cynosura*, or *Little Bear*, in the End of whose Tail is the Pole Star. The *Egyptians* taught the *Greeks* the Elements of this Science: But the *Greeks*, at that Time but little acquainted with the Stars, found it more convenient in their Sea-Voyages to be guided by the *Great Bear*, or *Helice*, as the more sensible Constellation. As it don't shew the North, but in a vague Manner, the *Greek* Pilots had an uncertain Guide; and what also shews their Ignorance, is, that for want of Sea-Charts to describe the Isles and Coasts, they provided themselves with Birds, which by their Flight might shew them the Land they designed to go ashore on, or which they were afraid of, or design'd to shun (†). So the *Greeks*, and after them the *Romans*,

(†) Plin. hist. nat. l. 6. cap. 24.

mans, who were their Disciples in this Art, contented themselves with coasting Voyages. In the Time of the Emperor *Claudius*, *Hipalus* taught the *Romans* to go to the *Indies* by open Sea (u).

Tho' Navigation was very imperfect in these ancient Times, and tho' their Ships were nothing near so good for Sailing as ours; yet it must be acknowledged, they made a finer and greater Show; they had something surprizing in their Structure. The Vessel which *Hiero* built by the Direction of *Archimedes*, had twenty Tire of Oars: That of *Ptolemy Philopater*, was 280 Cubits long, 38 broad, and 50 Cubits high, and had 40 Tire of Oars (x). It is believed, that in all these Vessels, the Tires or Banks of the Rowers were all above one another, not perpendicularly, but in an oblique Manner, and as by Degrees or Steps. It is true, it could not be easy to manage Oars of 38 Cubits; therefore it was, that, as (y) *Plutarch* says, those Ships were not so much for Use, as for Pomp and Shew: And to speak justly, according to *Vegetius*, there were none but those of five Tire, and of the lesser Size, that were fit for War.

Let us pass over some Ages after the Fall of the *Roman* Empire, as of no consequence to the History of Navigation, and come to the Invention of the Compass; at this famous Epoch, the Art of Navigation began to be improved, and by little and little brought to that flourishing State, in which we see it at present. The Ancients knew nothing of the Load-stone, but its attractive Virtue. It was

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(u) *Dodwel de Art. & ætate populi maris Erythræi.*

(x) *Athen. lib. 5.*

(y) *In vita Demetrii.*

only in the thirteenth Century, that the Property of this Stone's turning of itself to the Poles of the World, and that it communicates this Property to Iron, was discovered. To these two Experiments we owe the noble Treasure and Invention of the Mariner's Compass.

It is not certain, whether it was *John Goya* a Mariner of *Melphi*, or some other before him, who found out the Use of it; but it is certain, that it is only since the Time of that important Discovery, that *Bartholemi Dias*, a *Portuguese*, opened a new Road to the *East-Indies*, by doubling the Point of *Africk*, which he called the *Cap de Tourmentes*, and which has been called since the *Cape of Good Hope*; and that soon after, *America* was discovered, and other unknown Countries.

Tho' the Needle, touch'd with the Loadstone, has a natural Bent to hold itself in the Meridional Line, by turning one of its Extremities to the North, and the other to the South; yet it is subject to Variations at different times. It was observed in the Reign of *Charles IXth* to decline towards the East, about Four Degrees. Under *Henry the IIIrd*, it appear'd entirely parallel to the Poles of the World; and under *Henry the IVth*, it began to decline towards the West; and to this Day it goes on declining that Way (z). Whence it is clear, that the Variation of the Compass cannot be too carefully observed; and that the Want of Exactness in these Observations, occasions oft-times great Mistakes in Navigation. As the ordinary Method don't sometimes mark this Declination, nor with that Exactness which were to be wish'd, Mr. *Meynier*, the King's Engineer for the Marine, has invented

(z) Journal des Sçavans, Octob. 1732.

vented an Instrument, which has been approv'd of by the Academy of Sciences (a).

The Glory of carrying the Art of Navigation to its last Perfection has been reserved to our Age and Nation. *M. de Chazelles* has made a good Use of the Gallies of the Ocean, for halling the Vessels. He has made most of the Charts, which compose the two Volumes of the *French Neptune*; a Work of great Value, since it comes from an able Hand: But there is yet something of greater Importance.

Every Body knows of how great Consequence the Working of a Vessel is, and nothing has been neglected to find out its true Theory. The Fathers *Pardies* and *Holle*, and *M. le Chevalier Renaud* have treated this Subject thoroughly. As their System or Scheme is much the same, and is rais'd on a Foundation not quite so solid, *Mr. Huygens* was the first who perceiv'd it, and *Mr. Bernoulli* afterwards gave a new Theory, whose Principles are incontestable: But the most sublime Knowledge is of little Use if it is not reduced to Practice. With this View *M. Pibot* apply'd himself to accommodate the Doctrine of *Bernoulli* to the Capacity of the Sailors, and has made its Use easy by exact Tables (b).

The Working of a Ship becomes more easy, when the Masts are put in a perfect Position. This is a Thing which had not been so carefully attended to, as it deserved.

Mr. Bouguer was the first who observed, that according to the Structure of our Ships, the Sailing Point, where the Force of the Wind

(a) Journ. des Sçavans, Nov. 1732.

(b) Theorie de la manœuvre des Vaisseaux reduite en pratique. Paris 1731.

Wind against the Sail, and the Effort of the Water against the Fore-part of the Ship, which divides and cuts it, unite together, ought to be in the Middle of the Mast, whose Axis is judged to pass thro' the Centre of Gravity of the Ship. He has also remarked, That every thing else ought to be so disposed, that the Changes which may happen, may not be able to produce any other Effect upon the Sailing Point, than to make it fall or mount along the Mast. Moreover, as all Shafts of the Wind unite their Force in one Point, which is at the Centre of the Hollow of the Sail, which they fill, Mr. *Boguer* has demonstrated, that by diminishing the Height, which is ordinarily given to the Sails, and by enlarging them at the Top, 'twould be as good as two Sails, the one at the Prow, the other at the Poup, to make the Vessel go at a great Rate. If this Method be ever follow'd, it will lay aside a great many Masts which are made use of, and it will make Sailing and conducting a Ship more easy (c).

(c) *Traité de la Mâture des Vaisseaux.*

OPTICK, CATOPTRICK, DIOPTRICK.

THE Sciences we have been discoursing of owe their Progress to Opticks, and the Instruments which it has furnished.

Opticks consider the different Roads, which Optick, the Rays of Light hold in different Medi- Catop- trick, Diopt- rick. ums: For those Rays either come to us in a straight Line, when they find no Point of Obstacle; or they are reflected back towards us, when they hit upon any hard or polish'd Body, which they cannot penetrate; or they turn off from their Rectitude, and change their Determination, if they pass thro' many Mediums diversly transparent.

The Ancients and Moderns made but little Progress in this Science, till the new Philosophy took Place. Those who treated of this Part of Mathematicks before that Epoch, were either Physicians who were not Geometricians, or Geometricians who were not Physicians.

Des Cartes and *Pere Malebranche* perceived the Necessity of joining these two Sciences together, for the Sake of one Art that depended upon them both. The most compleat Treatise of Opticks is that of Mr. *Newton's* (d). According to this Author, the Parts of most Bodies are naturally transparent; and that it is only the Multitude of the Reflexions of certain Parts, render them Opake. As to Colours, this Mathematician maintains, that they are radically contain'd in the Rays of the Sun and Light; and that the in-

inherent Colours of Bodies depend upon the Thickness of the Parts that compose them.

The new Geometry of the North led Mr. *Bernoulli* of *Bale* to his Theory of the Curves, which turn upon themselves; these Turnings of the Curves made him discover two general Formulas of Causticks (e), by Reflection and by Refraction; and by that he gives an Abbridgment of all the Catoptricks and Dioptricks.

Before the Invention of the Calculation of Infinites, Mr. *Tschirnaus* had meditated a great deal on that sort of Curves, and gone a good Length in their Theory; and what Mr. *Bernoulli* had not done, he reduc'd that Theory into Practice, by the Burning Mirrors which he made, the greatest and most perfect that had ever been seen. These Mirrors multiply the Heat, by collecting the Rays of the Sun in the Focus. Tho' this had been known of a long time, it afforded but little Help, because of the Smallness of the Mirrors. Mr. *Tschirnaus* caus'd these Mirrors to be made in the Glass-houses of *Saxony*, which gave us a new Sort of *Chimie*, by apprizing us, that there are no Bodies which may not be melted and vitrified. Philosophers improv'd their Physics by this Discovery, and made Nature better seen. But the Phænomenon which the History of the Academy of the Sciences publish'd on this Occasion, *Ann.* 1699 and 1700, could have serv'd only to make People incredulous, if they had not seen the famous Mirror of the *Palais Royal*, which was the only Thing could remove their Doubts. This Mirror is three *Rhindlandick* Feet in Diameter,

(e) Curves form'd by the Concurrence of the Rays of Light, which another Curve has reflected or broken.

is convex on both Sides, and weighs a hundred and sixty Pounds. The Mass of Glass it was made from, is said to have weigh'd 700 Pounds; and that it was wrought in Basons. What Assistance may we not expect from so wonderful an Instrument, susceptible of so many Experiments?

The Burning Mirror made Way for the Telescope; for it was by making Burning Glasses, that *Jacobus Metius* found out, by mere Chance, Glasses for approximating the Object. The famous *Galileus* made them afterwards, without having seen those of the Inventor. *Marcus Antonius Celio*, a Roman Gentleman, brought the Telescope to its greatest Perfection; and they have come, at last, to make the Tube of 76 Feet, as is that of the great Telescope of the Observatory at *Paris*. To the Glasses for a long View succeeded the Microscope, whose Function is to magnify the smallest Objects, as the Function of the Telescope is to approximate the most distant. Many have excelled in making good Microscopes; but Mr. *Holmberg* ought to be prefer'd to them all, because of the Simplicity and Exactness of those he has given us.

The

The Art of DIALING.

THE Art of Dialing makes use of the Rays of the Sun, for dividing Time into equal Parts. This Science is very ancient. The Dial of *Achaz* shews, that it was not unknown to the *Jews* (f). The *Chaldeans* cultivated it likewise, and the Philosopher *Anaximander* brought it from *Chaldea* into *Greece*.

The first Dial that was seen at *Rome*, was under the Empire of *Augustus* : But it was very remarkable, and was the Invention of *Manilius* the Mathematician ; a gilded Ball placed on the Top of an Obelisk in the *Campus Martius*, says *Pliny*, serv'd for a Sun-dial ; and that Historian adds, that *Manilius* conceived the Idea of it, from the Shadow that the Head of a Man makes ; which is a Proof of the Novelty of this Invention among the *Romans*.

In the sixteenth Century, some learned Men applied themselves to the Study of Dialing ; among others *Oronçe Finé*, and *Elie Vinet*, *Frenchmen* ; *Driander*, a *German* ; and *J. B. Benedictus*, a *Venetian* : But the Knowledge of the Opticks and Astronomy, at present, has brought Dialing to its last Degree of Perfection.

The Necessity there is for measuring of Time has given the Occasion of many Inventions for that Purpose ; and some of them more convenient than Sun-dials. The Ancients ordinarily made use of the *Clepsydra*, a Vessel with Water, for measuring their Hours.

Vi

(f) Kings, B. 4. ch. 20. v. 11.

Vitruvius gives the Description of it in the in the 9th Chap. of his 9th Book. They were laid aside by the Moderns, who invented Wheel Machines, with a Spring, which were much more just. Afterwards the Pendulum Clock was invented, which brought the Measure of Time to the greatest Exactness that's possible.

The Pendulum is a Weight suspended by an inflexible String, ty'd to a fix'd Point, about which it makes, by its free Motion in descending and ascending again, Arches of a Circle, which are call'd Vibrations; the Length of the String determines the Time in which every one of these Vibrations is made. *Riccioli*, *Langrene*, *Vandelin*, *Mersenne*, *Kircher*, made use of the Pendulum for astronomical Observations.

In the mean time, *Pere Marsenne* invented a new Curve, call'd *Cycloide* or *Little-wheel*, because this Line is describ'd by a Point of the Circumference of a Circle, which is made to turn upon a Plane. The greatest Geometricians took this Curve under their Consideration; and Mr. *Huygens*, who had applied the Pendulum to Clocks, found that the *Cycloide* might serve to bring Clocks to the utmost Perfection; and he found that there wanted nothing, but to make the upper Part of the Rod of the Pendulum play between the two Rods of the *Cycloide*. *Fromentil* a Dutchman made the first Essays of this Method in *England*, about the Year 1662. To this Method succeeded in that Country, according to Mr. *Derham* (g), the Invention of the Wheel and Barrels, which he commends very much.

(g) Treatise of Clock-work.

The MECHANICKS.

THE Mechanicks explain the Laws of Motion, and teach the Way of making heavy Bodies move, by the help of Machines.

The Machines are of two different Kinds, the Simple and the Compounded. The first are ordinarily reckon'd fix; the *Balance*, the *Lever*, the *Pully*, the *Wheel* with its *Axletree*, the *Wedge* and the *Screw*.

The compound Machines include many simple Machines in their Construction; therefore it would be very difficult to enumerate them all. But they serve either to raise Weights, as the Crane; or to draw, as the Windlafs; or to drive into the Ground, or into any thing else, as the Rammer. It is evident, that this Art supposes the Knowledge of Weights; of the Balance of Bodies, and of their Centers of Gravity; that is to say, of the *Statics*.

Egyptians. There is no Reason to doubt, that the *Egyptians* were well acquainted with Mechanicks; their Obelisks are a clear Proof of it. 'Twas by the help of this Science, that they digg'd and drew out of the Quarries such huge Stones, transported them to a great Distance, and rais'd them to so prodigious a Height, as has made them the Wonder of the World. They must therefore have made use of Machines much like ours; and if they knew how to do these things easily, they must have had the Mechanicks in great Perfection.

Greeks. The *Greeks* also were well vers'd in Mechanicks. *Ctesiphon* and his Son *Metagenes* invented

vented Machines for carrying the great Stones, Pillars and Architraves, which were to serve for the building and ornamenting the Temple of *Ephesus*. *Vitruvius* has preserved to us the Description of them (*b*). This Architect describes also at length the different Machines in use among the *Greeks*, to raise heavy Burdens. The same, probably, which were afterwards in use among the *Romans*.

Tho' the Ancients push'd the Practice of this Art very far, yet it is to be doubted, whether they carried the Theory of it so far as the Moderns. *Galileus* a *Florentine*, a good Geometrician and an excellent Astronomer, drew from these two Sciences the perfect Knowledge which he had of Motion. He is the first who found out the Proportions of the Vibrations of suspended Weights, and the Acceleration of the Motion of heavy Bodies in their Fall. To be convinc'd of it, read the Abridgment which is ascrib'd to *Pere Mersenne*, and which contains all that is most excellent and ingenious in the Doctrine of that great Man (*k*). So useful an Art has not been confin'd to *Italy*; *England* has its Prince *Rupert* (*l*); *France* has *Descartes*, *Pere Sebastian*, *M Pitot*, and many others.

(*b*) Lib. 10. ch. 6.

(*k*) *Nouvelles Pensées de Galilée*, 1639.

(*l*) He lived in Charles II's Reign.

HYDROSTATICKS.

HEAVY Solid Bodies may be compared with Fluid Bodies; the Hydrostaticks or Hydraulicks, which teach the way of conducting and raising of Water, consist in this Comparifon.

Ancients. Those who have any Knowledge of the History of the ancient *Egyptians*, know, that they found the way to keep their River within juſt Bounds, and to make good Uſe of its ſalutary Waters, whether it was by ſpreading them over their Plains, or by raising them to great Heights.

Among the *Greeks*, *Aristotle* was the firſt that wrote of the Equilibrium of Liquids, and who reduced the Flight of Birds, the Motion of Fiſhes, and the Direction or Steerage of Ships, to the Rules of Mechanicks.

It is well known with what addreſs *Archimedes*, who came after *Aristotle*, diſcovered the Cheat of the Goldſmith of King *Hiero*. This famous Mathematician invented that *Cocklea* or Vice, which by the Motion of an inclining Cylinder makes the Water riſe, while it falls. The Water acts by its own Weight in this ſimple Machine, but it cannot be carry'd very high.

Cteſibius, by making Uſe of a more compounded Machine, which has kept the Name of its Inventor, (*m*) knew how to make Water riſe to all ſorts of Height, which is in Uſe at preſent, as are the ſeveral other ſorts of Pumps. But of all the Hydraulick Inventions of the

(*m*) Pump of *Cteſibius*.

Ancients,

Ancients, there is none of greater Importance, than the Invention of Water Mills; for, as *Vitruvius* describes them, they seem to have resembled ours pretty much (*n*). It's true, they were not so common in these times as they are now-a-days; and it's what *Pliny* remarks very clearly, when he speaks of a Way of grinding the Corn, not so ordinary (*o*).

The Moderns knew little of the Hydrostatics before *Galileus* (*p*). This great Man being still of Opinion with the Ancients, that there was no Vacuum in Nature, attributed the Elevation of the Water in the sucking Pump, to the Abhorrence of a Void. *Torricelli*, his Disciple, remarked, that when one plunged into a Vessel full of *Mercury*, a Tube close at the upper End, the *Mercury* remained insuspended in the Tube at a certain Height, and that it fell into the Vessel when the Tube was open. *Torricelli* communicated this Experiment, but without referring it to the true Cause; but by repeating it often, he conjectured, that it might be the Effect of the Weight of the Air.

M. Pascal took hold of the Notion, and after being assured of the Fact by Experiments which he made, and published *an.* 1647, he endeavoured in 1648, to assure himself of the Cause; and his Essays and Experiments made him know at length what *Toricelli* had only conjectured: and what the great Duke's Mathematician had only said doubtfully, *Mr. Pascal* demonstrated by the famous Experiment he made upon the Pit of *Domme*, and afterwards in Treatises which he publish'd (*q*).

(*n*) Liv. 10. ch. 10. de la Traduction de *Mr. Perrault*.

(*o*) Hist. nat. 18. c. 10.

(*p*) He died 1642.

(*q*) De l'Equilibre des Liqueurs, & de la Pesanteur de la Masse de l'Air.

Air Pump.

Some time after, *Guerick* Burgomaster of *Magdebourg*, made an invincible Proof of this Truth, by his pneumatick Machine; by two Plates of Brass, applied close to one another, which sixteen Horses, by drawing, could not separate from one another; and by a little Figure of Glass, which descended in the Tube when the Weather was about to be rainy, and came out when it was about to be fair.

Barometer

This little Prophet was famous for some time, and at last gave place to the Barometer, especially after Mr. *Huygens* and M. *Amontons* had given theirs.

After the Invention of an Instrument so necessary for knowing the Heaviness and Lightness of the Air, nothing was more easy than to find out the Thermometer, to mark the different Degrees of Heat and Cold. It appeared an. 1673; and a long Time after, that of M. *Amontons* appeared; an Invention, says his Historian (*r*), “ which is not only useful for Practice, but which has given new Views for Speculation.” This able Mechanist had before presented to the Academy of Sciences a new Hygrometer, which was much approved of. It is, as every Body knows, an Instrument for measuring the Humidity of the Air.

The Experiments which had been made for knowing the Properties of Fluids and Liquids, mov'd Mr. *Mariote* to make many Observations which had not been touched on. These Observations led him insensibly farther than he had thought. He enriched the Hydraulicks with a Number of Discoveries on the Measure and Expence of Waters, according to the different Heights of the Reservoirs, and their different Adjuncts. Afterwards he examin'd

what

(*r*) M. Hontello. Eloge Hist. de M. Amontons, &c.

what concerns the conducting of Waters, and the Strength which the Pipes required for resisting their different Burdens.

It is a delicate Matter enough, and requires fine Ideas, and a good deal of Resource and Knowledge to remove Difficulties, and a great Dexterity in the Execution. M. *Mariote* was Master of these Talents in an eminent Degree, and was singularly good at making Experiments. He made them for most part at *Chantilly* and at the Observatory. M. *Mariote* had nevertheless neglected that which concern'd the different Pumps, and other Machines which might serve to raise Water: This Part of the Hydrostaticks was altogether new, or had been touch'd but very imperfectly, when the Chevalier *Merland* undertook to treat of it (s). If he has not exhausted his Subject, he has at least given Light enough for carrying on the Theory and Practice of it very far.

MUSIC.

MUSIC explains the Properties of Sounds, which are capable of producing any Harmony. It's in this, that the Theory of this Art consists: but practical Musick is the Imitation of the Sounds which Nature makes Use of to express her Passions and Sentiments; and these Sounds are reduced to a continued Chant or Song, which is called the Subject. To come at this, Musick employs Accords, which imitate Natural Sounds; Mea-

O 3

sure

(s) Dans son livre des Elevations des Eaux.

ture and Motion, which imitate the Progession and the Motion of these Natural Sounds. Therefore its principal End is to touch; and it cannot but please, because every Thing that is according to Nature is always agreeable.

Musick, the younger Sister of Poesy, has been cultivated in all Ages.

The *Israelites* knew the true Use of it; they made it serve to proclaim the Praises of God, and to give a Relish to moral Precepts. Such Songs must have been excellent, grave, solid, and at the same time touching and various.

The Instrumental Musick of the *Hebrews* was no less Excellent. The Scripture seems to attribute supernatural Effects to it (*t*). We don't know what were their Instruments; it is only certain that they had a great Number of both Wind and Stringed Instruments.

Israelites. Tho' the *Israelites* were always given to Musick, yet we may look upon the Reigns of *David* and *Solomon* to have been the Age in which it was most flourishing. There were then 288 Musicians appointed to sing in the Temple, and to instruct their Scholars. *David* himself was very well skill'd in Musick. We need not doubt, but his Subjects, after his Example, made considerable Progress in it; for the Inclination of Kings tends very much to the Advancement of the Arts.

The Songs of the *Hebrews* were ordinarily accompanied with the Dance; and the Chorus, which is so oft spoke of in the sacred Books, was made up of the two together.

Egyptians. The *Egyptians*, according to the Example of the *Israelites*, consecrated Musick to Religion.

Clemens

(*t*) Kings, B. 1. ch. 16. v. 23.

Clemens Alexandrinus (u) makes the Chantor, with a Symbol of Musick and a Book of Hymns in his Hand, to walk at the Head of their Holy Processions.

As this Art was never employ'd in a profane Way, the *Egyptians* rejected those soft and effeminate Airs, which inspire nothing but false Pleasure, and retain'd none but those noble Accords or Harmonies, which raised the Heart and Spirit.

Mercurius, according to *Diodorus Siculus* (x), invented the Harp, the gravest of all the Instruments of Musick. *Osiris* had before made the simple Flute succeed to the Flute with several Pipes of unequal Length; he also found out the Trumpet and Timbals to animate his Soldiers.

It was in *Egypt* that *Pitthagoras* got the Taste *Greeks*. and Knowledge of Musick, which he communicated to the *Greeks*. *Jamblicus* (y) gives us a great Idea of it, when he assures us, it was proper for allaying and curing the Passions; but he is surely mistaken, when he attributes the Invention of it to this Philosopher. It is said, that he explain'd by different Tones the Things that did not fall under the Senses, and that he imagin'd a Harmony in the Heavens for regulating the Course of the Stars. The Love which he had for Musick, made him reduce to this Art things that were much removed from it. He found new Accords, and a certain Measure in the Strokes of the Hammer, when a common Tradesman beat upon the Anvil (z). A Philosopher is always a learning, every Thing instructs him.

O 4

The

(x) Lib. 1. Sect. 1.

(y) Vit. Pythag.

(z) Rapin Compar. de Platon & d'Aristotle.

The Age *Pericles* lived in seems to be the most remarkable for Musick. This great Man built the *Odeon* and instituted the Plays and musical Contests at the *Panathenean* Festival (a). The Prize and Marks of Honour, with which those who carry'd it and excell'd were rewarded, excited an extraordinary Emulation among those Spirits, who were naturally Ambitious and Jealous of Glory.

In those days Musick had something Masculine and Warlike in it. It was design'd to inspire nothing but Virtue, and to celebrate the Heroes. The Severity of the *Dorian* Mode was very proper for this, and *Pindar* made Use of it in his Lyrick Poesy. The *Phrygian* and *Lydian* Modes were afterwards introduced, which were good for nothing, but to soften the Youth, and flatter their disorderly Passions. *Plato* banished them his Commonwealth (b). But it is to be believed, that so wise a Regulation was as little observed as the other Rules of that Philosopher. *Phrynis* was the first, who in the Time of *Socrates* corrupted this Art by languishing and effeminate Airs, or tender Airs as we call them now; and it is astonishing that we should imitate so decry'd and poor a Musician, in this Point.

Rhythmick Musick.

We must observe, that the Musick of the *Greeks* was of greater Extent than ours. It comprehended five different Arts. The Rhythmick Musick regulated the Cadence in all sorts of Motions; the Dance, Theatral as well as Lyrick, belonged to its Jurisdiction.

Metrick.

Metrick Musick taught to observe Measure in rehearsing Dramatick Poems; for among the Ancients, the Rehearsing of the Dramas was

(a) Plutarch in the Life of *Pericles*.

(b) De Repub. l. 4. De Legibus, l. 7.

was a melodious Declamation, which had different Modes, and kept a mid way between the true Chant or Song, and the Pronunciation of familiar Discourse.

The third Musical Art is the Organick Musick, which teaches to play upon the Instruments. The Wind Instruments were comprehended for the most part under the Name of *Tibiae*, or Flutes; in general, they call'd those streight Flutes, whose Tones were low; and those left, whose Tones or Notes were sharp. The String'd Instruments had their Strings placed over a void or hollow Bounding. The different Configuration of the hollow Part of these Instruments, made some of them get the Name of *Testudines* or Lyres; others that of *Chitharas*, Harps, Guitars, Virginals, &c.

The Hypocritick Musick made the fourth Hypocritick Class. We should call it now-a-days, the Counterfeit Musick; it regulates the Gesture.

The last of these Arts was the Poetick Musick, which taught the Measure of Verse, and their Rehearsal. I believe it differed from the Metrick Musick, by this, that it treated of the Theoretical Melody; and the other of the practical Melody. In *Greece* the Poets themselves noted their Pieces; and these Notes had their Tone by virtue of a Figure proper to each Note (c).

It is evident that Musick, properly so call'd, was among the Ancients contain'd in the Rhythmick; for the Rhythmick gave Rules for all the Sounds, as also for all the Motions of the Body. It was divided into three Kinds, the Diatonick, the Chromatick, and the Hemiharmonick; which made three Systems, with regard

to

(c) M. L'Abbé de Bos, *Reflex. critiq. sur la Poésie & Peinture.*

to the different Intervals which are observed in the Progress of the Composition.

Musick also varied according to the different Lyrick Poesies; for the *Greeks* had them of different Sorts. The first, consecrated to the Worship of the Gods, was call'd *Profodes*: The other was sung by the Crew when they embarked, and they were called *Apostolick*: The third were the *Pæans*, military Songs, in Use both before and after Battel.

The Songs at Table were of two Sorts, the Dithyrambricks and the Scholies: There are Examples of them in *Homer* and *Virgil*. But they soon degenerated from the Nobleness of their Origin; and from the Time of *Aristophanes*, the Dithyrambrick Poets passed for the Corrupters of Musick. At length the Verses or Songs made for the Dance, call'd *Hyparchemes* belonged to the Chorus's of the Theaters (*d*).

The *Romans*, who were Heirs of the *Greek* Politeness, retained their Musick: but after the Extinction of Paganism, and the shutting up of the Theaters, St. *Ambrose* preserved only for Divine Service the Modes called *Authentick*. St. *Gregory* afterwards added those called *Plagaux*; so that he made the Chant both more Beautiful and more Expressive, which before him had nothing to recommend it but Gravity only. At that time the Sounds were marked by the Seven first Letters of the Alphabet, and that Use lasted to the eleventh Century.

Guy d'Arrezzo, a *Benedictin* Monk, who liv'd at that time, took the Resolution to mark them by the Points distributed on different Lines, so that the Position of every Point design'd and specified a different Sounding. This Method was
very

(*d*) Blondel. Comparaison de Pindar & d'Horace.

very simple ; but it had one essential Fault. In the Gamut of *Guy*, the Measure of the Length of his new Notes was not seen and conceiv'd. It was a long Time after, and in the Reign of King *John*, that *Jean de Meurs*, a *Parisian*, found out a way of expressing the Value of those Points, by the different Figures which he gave them.

The Humour for Musick increased in *France*, and spread over the *Low-Countries*, when *Francis I.* and *Charles V.* took the fine Arts under their Protection. The most famous Musicians of *Europe* were either *French* or *Flemings* : *Italy* itself, which is so jealous of its Rights with regard to Musick, had recourse to *France* : *Gaudimelle* is a Proof of it. It's true, it paid its Debt to us, by giving us *Lulli*.

In Effect, this excellent Man brought Musick to such a Degree of Perfection, that a fine Genius of this Age has demonstrated, in a learned Dissertation, the Superiority of our Musick above that of the Ancients, of which so many Wonders have been written. Study and Practice made all the Musicians that preceded *Lulli* ; nothing but Genius made him ; I mean, a natural Conception of what is fine, which often raised him above Rules and Precepts : 'Tis this which made him throw into all his Compositions those fine, lively, delicate, and expressive Turns, that they may be call'd the Poesy of Musick, and which will always distinguish the Great from the Common Masters in this Art.

FORTIFICATION.

THE Necessity of making sure and safe within, and providing against Attacks from without, has given the Art of fortifying Places a considerable Rank amongst the Parts of the Mathematicks. The Origin of this Art is not doubtful.

Cain first
fortified
Towns.

Cain, after the Murder of his Brother, built the first Town, that he might shelter himself, as in a Place of Refuge, from the Hatred and Abhorrence of Mankind (*e*). After the Deluge, *Nimrod*, says the Scripture, began to be powerful on the Earth. The Number of the strong Places of this Conqueror is told (*f*). *Pharaoh* King of *Egypt*, Persecutor of the *Israelites*, caus'd to be built on the Frontiers of his Kingdom, the Fortresses of *Philom* and *Ramazes* (*g*).

As for the Manner of fortifying Towns, used among the People of the East, we see in the *Chronicles* (*h*), that *Ezechias* raised the Walls of his Towns, built Towers from Space to Space, and surrounded the first Wall with another Wall without it. It was in these Towers they put Machines for throwing their Darts and great Stones (*i*). The Besiegers also had their Machines, which they plac'd upon
Ramparts

(*e*) Gen. c. iv. v. 17.

(*f*) Gen. c. x. v. 8, 10.

(*g*) Exod. c. i. v. 11.

(*h*) Book II. c. xxxii. v. 5.

(*i*) Chron. Book II. c. xvi. v. 15.

Ramparts made for the purpose, and made Trenches to secure themselves from the Sallies of the Besieged (*k*).

The *Greeks*, who took both their Offensive and Defensive Arms from the People of the East, took also from them their Method of attacking and defending Places; as also the Order of Encamping, Marching, and the Manner of Ranging their Troops in Battel. To be convinc'd of this, compare the Account the Scripture gives of the military Art of the *Hebrews*, with the Account *Homer* gives of the military Art of the ancient *Greeks*. There you see Chariots with two, three, and four Horses; the Cavalry sometimes mixed with the Chariots, sometimes plainly separated; the Infantry appointed to sustain the Horsemen, and the Troops ranged by Nations. But, to consider only what concerns the Art of Fortifying in particular, you may see among the *Greeks*, Towns with a double Inclosure, which had for ordinary seven Courts of Guards, of a hundred Men each.

This Manner of making War was continued down to the time of the Invention of Fire-Arms. Gun-powder, which was unknown to the Ancients, tho' the Preparation of it is not very difficult, has been made use of only about four hundred Years. He was a *German* who invented Artillery, according to some Authors, *Anno* 1354; but they are mistaken: for Powder and Cannon were known in *France* in 1338. *Du Cange* makes it appear, that they were made use of that Year at the Siege of *Puy-Guillaume* (*l*); and, for another Proof,
Vill-

(*k*) Kings, Book IV. c. xix. v. 22.

(*l*) Gloss. Lat. tom. 1.

Villbardouin says^(m), that, at the Battle of *Crecy*, *Edward* King of *England* caus'd to be placed upon an Eminence a Number of Guns or Cannons, which discharged Bullets of Stone; and he adds, that the Fire and Noise which these sort of Machines made, put the Cavalry of *Philip de Valois* in Disorder.

The Invention of Bombs followed that of Cannon; but the 'Learned don't agree about the first Inventor. Some say, that about the End of the 16th Age, an Inhabitant of *Venlo*, a Town in the Province of *Guelderland*, found out the Bomb, and made use of it, on some Occasion, with other artificial Fire-works: Others attribute this Discovery to an *Italian* Engineer, who, according to them, made trial of them at *Bergenopzom*. Whatever is in it, it is certain, that the first Bombs which were made use of in War, were thrown in 1588 into the Town of *Wachtendonck* in *Guelderland*, besieged at that time by Count *Mansfeld*. It was only at the first Siege of *de la Mothe*, in 1634, that they began to be used in *France*; since that time the Use of them has been very common. As the Practice of the throwing of Bombs had been regulated by very faulty Tables⁽ⁿ⁾, *M. Blondel* made excellent Observations on the Subject, which have been but little minded, and therefore the Art has been at a loss.

The Art of Fortification is a Matter of too great Consequence to be neglected by Writers. *Vitruvius* has treated of the Fortification of the Ancients, in the third Chapter of the first Book; and in the tenth Book, where he discourses at great length of the Machines of War.

As

^(m) L. 12. c. 65.

⁽ⁿ⁾ These Tables are in the *Memoirs of Artillery of St. Remy*.

As to the modern Fortification, the first who wrote of it were the *Italians* ; amongst whom *Rameli* and *Cataneo* are the most distinguished. After them were *Jean Erard*, Engineer of *Henry the Great* and *Lewis XIII.* *Simon Stevin* Engineer of the Prince of *Orange*, *Marolois*, *Le Chevalier de Ville*, *Lorini*, &c. The Count *de Pagan* contributed a great deal to the Perfection of that Art, by the solid Maxims he laid down in his Treatise of Fortifications, which was published in 1645.

The slavish Attachment to certain general Rules, oft-times but so and so founded, is the Rock, as 'tis observed, against which all those who have written on this Subject have split. Marshal *de Vauban*, without subjecting himself to a particular Method, chang'd always his Manner of Fortifying, according to the different Circumstances of the Extent, Situation and Nature of the Ground of the Places he was about to fortify. If he has written nothing of his Art, we have 300 old Places, where his Works are to be seen ; and 33 new ones which reveal his Practice, and instruct better than Books.

He was no less skillful in the Attack than in the Defence. We are obliged to him for the Invention of the Parallels, the Places of Arms, the Cavaliers of Trenches, and the *Ricochet* Batteries, or *Duck* and *Drake* Batteries. The happy Success of 53 Sieges which he conducted, shew how much he improv'd that Part of War, which, tho' very considerable, was but little understood before this Marechal.

ARCHITECTURE.

THE Art of Fortification has only Strength and Solidity in its Design: Architecture joins an Elegance and Beauty to the Solidity of Buildings, which Fortresses are not susceptible of. Necessity occasion'd the Invention of Architecture, and the Vanity of Men embellish'd it. The good and bad Taste of People have successively spoil'd and recover'd it. The first Habitations were Cottages in the hot, and Caves in the cold Countries (*o*): which sufficed to protect them from the wild Beasts. But when Interest and the Passions had arm'd Men against one another, or when induced by the Pleasure and Comforts of Society, they resolv'd to build Houses and Towns; then it was, that they pierc'd the Quarries, and employ'd Masonry. They improv'd in the Trade daily, till by degrees they arriv'd at something like Perfection in Masonry. They substituted Pillars instead of Posts, which supported their ancient Habitations. Architraves took place of the Poitrals, which join'd the Posts together, and the Frontons imitated the Ornaments of the Carpenter's Works, which were under the Roof (*p*).

Egyptians. The *Egyptians* were the first who brought Architecture to Perfection; their Architecture resembled their own Character: It display'd over all a noble Simplicity, which is conform and agreeable to Nature, and a Greatness which fill'd

(*o*) Vitruv. l. 2. c. 1.

(*p*) Vitruv. l. 1. c. 1. l. 4. c. 2.

fill'd the Mind, and charm'd it. One reads with Astonishment in *Herodotus* (q) and *Diodorus* (r), the Description of the Labyrinth, that is to say, of twelve Palaces composed of 1500 Chambers, mixed with Terrasses, which communicated together around twelve Halls, and left no Outlet to those who entered. Our Travellers report (s), that there are yet to be seen in the *Thebaide* four Porticos of an extraordinary Height, on which four long Avenues terminate, and support a long Hall, which is supported by fixscore Columns, intermixed with Obelisks.

Egypt aim'd always at what was great; it rais'd Monuments for Posterity; its Pyramids are still subsisting; the greatest has a Base of 704 Feet on every side, and its perpendicular Height is 630; it ends in a Platform of 48 Feet in Circumference (t). The four Sides of this Pyramid are exposed exactly to the four Regions of the World (u). But as this Exposition, which is so exact, shews that it could not be the Effect of Chance, this Circumstance, join'd with that of the different Seats, which serve as Steps to mount to the Platform, discover, as I think, the Design, viz. of its being appointed for Astronomical Observations.

Chevalier *Chardin* (x), in his Draughts of the *Persians*, Ruins of *Persepolis*, gives us an Idea of the Architecture of the ancient *Persians*. Their Architecture was very much ornamented; but those Ornaments, tho' neatly wrought, want Taste, and have nothing that's natural.

P

The

(q) Lib. 2.

(r) Lib. 1. Sect. 2.

(s) Voyages de Thevenot.

(t) Voyage de Bruyn.

(u) Eloge de M. Chazelles.

(x) Voyage de Perle.

Greeks.

The *Greeks*, who were full of Invention, and who were lucky in them, had more Regularity in their Buildings, and more true Beauty. King *Dorus* consecrated a magnificent Temple to *Juno* in the Town of *Argos*. The Manner in which it was built was call'd *Dorick*, when Prince *Ion* caus'd Temples to be built in *Asia* after the Model of that which *Dorus* had built in *Greece*. A little while after, the *Ionians* (y) changed something in the Proportion, and in the Ornaments of the *Dorick* Pillars of the Temple of *Diana*; and the Rule which they followed on that Occasion, was call'd the *Ionick* Order: That which this Order had most remarkable were the *Volutes*.

Callimachus, Engraver at *Atbens*, augmented the Number of the Orders; he made them more fine, and put under them the Leaves of the *Acanthus* with their little Stems. This ingenious Workman took this Notion from the Plant *Acanthus*, or *Bear's Breech*, that was raised round a Basket which they had put upon the Tomb of a young *Corinthian* Lady. In memory of this Invention, they gave the Name of the *Corinthian* Order to the Pillars, which were surmounted with a Chapter like that which *Callimachus* invented (z).

The *Greeks* having given the Pillars a Proportion and Ornaments, fixed and bounded with regard to the three Orders of Architecture, they regulated the Spaces between the Pillars, and from the five different Manners of distancing and spacing the Pillars, they made five different Kinds of Buildings. The Edifice of the fifth Kind pass'd for the most perfect, because the Pillars are at a reasonable Distance, and

(y) *A People of Asia.*(z) *Vitruv. l. 4. c. 2.*

and well imagin'd (a). *Vitruvius* ascribes the Invention to one *Hermogenes*, whom he gives also for the Author of the *Pseudo-Dipteré* (b), and every thing that's beautiful in Architecture (c). So this Art mounted by degrees to that Point of Perfection, in which it appear'd at the Time of *Pericles*:

This Great Man embellish'd *Athens* with magnificent Buildings, all conducted by the celebrated *Phidias*, whose rare Talents were not confin'd to Sculpture. *Plutarch*, who had seen 'em; admires a certain young Freshness, which they had at the End of more than 500 Years. *Cimon* was no less a Lover of fine Architecture; but he put it to its true Use, and did not make it serve the Pride so much as the Conveniency of the Citizens. He was the Man, who fill'd *Athens* with Galleries, Walks, Squares, and Places of Exercise.

At the Beginning, the *Romans* built after the manner of the *Tuscans*, their Neighbours. The Notion of it may be taken from the *Or* *Tuscan* *Order*. *Order*. It is not only the most simple of all the Orders, and whose Execution is most easy; but is also the most solid, and most proper for supporting a great Mass of Building.

In After-Times, when the *Romans* were acquainted with the *Greeks*, they adopted their Three Orders. 'Tis true, they made some Alterations in the *Corinthian* Order, by putting Leaves of the Olive and Oak, in the place of the Leaves of the *Acanthus*. They

P 2

resolv'd

(a) This Distance is two Diameters and a fourth.

(b) A Temple, the Portico's of whose Pourtour had the Largeness of the double Portico of the Diplex.

(c) Vitruv. l. 3. c. 2.

resolv'd also to have another Order of their own ; and taking, according to their Fancy, different Parts of the *Corinthian*, *Dorick*, and *Ionick* Chapiters, they compos'd a Chapiter, which constitutes the *Roman* or *Composite* Order. Some may think this Fifth Order the most delicate and ornamented : But I am mistaken, if the *Connoisseurs* think it the most beautiful.

The good Taste which prevail'd at *Rome* during the Reign of *Augustus*, extended to *Architecture*. Nothing was more perfect in this kind, than the Temple of *Julius Cæsar*.

The *Corinthian* Chapiters, which are yet to be seen in the *Beef-Market* (d), and which will serve for a Model, when one would treat of this Order, are a good Proof of the Elegance, noble Simplicity, and judicious Ornaments which must have shin'd in this Temple. The Temple which *Augustus* consecrated to *Mars the Avenger*, the *Portico* of the *Pantheon*, which *Agrippa* caus'd to be built, and the Theatre of *Marcellus*, are the Master-pieces of Art.

In those happy Days arose *Vitruvius*, whose Authority with regard to *Architecture* has been so great ever since. But as he was only a Learned Man, and was ignorant of the Art of making himself known and esteem'd in the World, he was not trusted with the Conduct of any memorable Work, but the Temple of *Jupiter Anxur* at *Terracina* ; and he immortaliz'd himself only by the Ten Books which he wrote on his Profession in the last Years of his Life. This Work contributed, without doubt, to preserve the good Taste

(d) Campo Vaccino.

Taste of Architecture under the following Reigns.

The *Temple of Peace*, which *Vespasian* caused to be built, after he had shut up the *Temple of Janus*, Anno J. C. 71, is esteem'd by all the Authors, the Greatest, the most Magnificent, and the Richest which was at *Rome*. This Prince had adorn'd it with the precious Spoils of the *Temple of Jerusalem*: And the Draughts which *Palladio* gives us of that Edifice, don't bely the Testimony of the Cotemporaries (e).

Trajan, tho' a Man of no Letters, protected and encourag'd the Sciences and fine Arts. The Square which he caus'd to be built at *Rome*, shews, that Architecture flourish'd still in his Time; and it was what the Emperor *Constantius* admir'd most in *Rome*, when he came there Anno 357. The Work was conducted by *Apollodorus*, who had made the Bridge over the *Danube*, and whom *Adrian* put to death, from a low Jealousy, in the 13th Year of his Reign. This Prince dedicated a Temple to *Plotina*, in the Town of *Nismes*, which is yet intire. The Curious take notice of the Chapiters of the *Corinthian* Pillars, and of some Singularities of the Cornice (f).

You need not look for good Architecture after the Two *Antonines*. The Signs of the Decay of this Art are very visible in the two Triumphal Arches which were erected by *Septimius Severus* in the *Septizone*, of which there are some considerable Vestiges in the

P 3

Appian

(e) Lib. 4. del Archit.

(f) The Brackets are there placed a-crofs; but have nevertheless a pretty Effect, Pallad. l 4. c. 28.

Appian Way. And truly, the Taste was much alter'd at that time. It was yet worse when the *Goths* invaded the Empire. Those People did indeed cultivate Architecture; but at the same time they loaded it with coarse Ornaments, unskilfully placed, and without good Proportions. The depraved Taste lasted after the Invasion and Domination of those Barbarians.

Under *St. Louis*, about the End of the 13th Century, *Eudes de Montreal* built at *Paris* the Churches of the *Chartreux*, of the *Mathurins*, of the *Cordeliers*, of the *Quinze-vingt*, and some others. The Ignorance of that Age is very perceivable in these Buildings. Those which were made in the succeeding Reigns were much the same; they only copy'd what they saw before their Eyes. But as soon as the Study of the Ancients began to be reviv'd, the Taste for Learning and the Arts began to reform, and the Pieces of Architecture which had escap'd the Injuries of Time, when consider'd by the Ingenious, made 'em admire their natural Beauty; that Equality of Relation and Resemblance the different Parts of a Building had to one another, and that Regularity in the Proportions, which the great Masters of Antiquity had observ'd, struck them with Wonder and Surprise.

*French
and
Italians.*

Men make great Progress in those Arts, which are the Delight and the Care of great Princes. Pope *Leo X.* the Kings *Francis I.* and *Henry II.* lov'd Architecture, and under their Reigns this Science mounted all at once to its utmost Perfection.

The great Church of *St. Peter* does not want Admirers: But the Buildings of the *Louvre* are not always valu'd as they deserve. They were

were conducted by *Peter Liscet*, who is better known by the Name *de Clagni*. This Architect made likewise the Fountain St. *Innocent*, a Masterpiece of Art, adorn'd with the curious Sculptures of *Jean Gougeon*.

The Age of *Louis XIV.* which abounded with Great Men, produc'd excellent Architects. I don't know, if future Ages shall be able to give the World a *Francis Blondel*, and a *Louis de Van* : We owe all that is excellent in the Port St. *Denis* to the First ; and *de Van* eclips'd *Bernin*, who was brought from *Italy* ; in the Front of the *Louvre* alone he expos'd all the Riches of the Architecture of the Ancients.

The good Taste of this Art being so solidly establish'd, there remains only, to endeavour to preserve it. With this View, *M. Colbert* form'd the *Academy of Architecture*, about the End of the Year 1671. At first it consisted only of Six Architects ; their Disciples have augmented the Number, and assure to *France* the Possession of a valuable Property, which it would be a shame for her ever to lose.

JURISPRUDENCE,

CIVIL LAW.

THE *Egyptians* have recommended them- *Egyptians*
as well by their good Laws, as by the
Invention of the most part of the Arts.
Their Customs were excellent ; and they were
train'd up to the Observance of 'em. The

Order of their Judgments was also admirable (g), which appears from *Solon* and *Lycurgus*, their going into *Egypt* to be instructed in Law and Justice, and the Forms and Regulations necessary for Society and Government. Thence they brought their Systems, which serv'd to form the Manners of the *Athenians* and *Lacedemonians*. Besides, if we may believe the *Romans* (and why may we not in a Matter of this kind?) the principal Maxims of the *Egyptians* are found in the *Roman Law* (h).

Romans.

Numa laid the Foundations of the *Roman Jurisprudence*. This Prince establish'd the first Laws; and, which is of greater moment, made them be observ'd, by giving his Subjects an Example of all the Virtues. His Successors added to this Body of *Numa's* Institutions, Laws which had escap'd him.

Laws of
the 12
Tables.

But after the Expulsion of the *Tarquins*, the Abhorrence of Royalty made the *Romans* abolish all the Laws of their ancient Masters. And they went to seek for Laws in a Free State, which might be more conformable to the Constitution of a rising Republick. Hence came the *Laws of the Twelve Tables*, which were taken from the Laws that *Solon* gave to the *Athenians*, and which became the Basis of the *Roman Law*. In process of time, the Edicts of the *Prætors*, and the Decrees of the Senate and People were joyn'd to 'em. This Law, which comprehended both Publick and Civil Law, the Sacred and Profane, was deposited and entrusted with the Priests, who

(g) Bossuet, Disc. sur l'Hist. Univ. Part 3, Art. 3.
Rollin. Hist. Anc. des *Ægypt.* &c.

(h) Ammian. Marcell. l. 22.

who reserv'd to themselves the Knowledge of it, and made it a great Secret. One of them only was prefer'd, and empower'd to give Answers to those who came to enquire and consult him.

Things stood thus, when *Caius Flavius*, Secretary of the Pontiff *Appius Claudius Cæcus*, stole from his Master the Register of the Forms, which they who had any Action were oblig'd to use; and where were also marked the Days they could legally plead upon. The Present which *Flavius* made the People of this Register, was so much valued, that he was made a Tribune and a Curule Edile, tho' he was only the Son of a Freed Man. For the *Romans*, at that Time, were as much ty'd to Forms in their Law Suits, as we are now-a-days.

About the
Year of
Rome 450.

From that Time, the Study of Law became more general. A remarkable Passage of the first Book of the Orator informs us, that it was not reduced into an Art, at the Time of those who speak in that Dialogue: It is certain, it was afterwards; and that it was much studied under the Emperors. We read in *Capitolinus*, that *Marcus Aurelius* had studied the Law under *L. Volusius Martianus*.

From that Time there was at *Rome* a regular Exposition of the Law, a School of Lawyers, whose Decisions, founded on the most solid Maxims of natural Equity and the purest Light of Reason, have made up the fifty Books of the *Digests*. The most celebrated of all these Lawyers, was *Papinian*, whom *Septimius Severus* rais'd to the Dignity of Lord Chief Justice. He had for his Assessors *Paul* and *Ulpian*, who succeeded to him

Digests.

in

in that Office under *Alexander Severus* ; and who were Cotemporaries of *Florentin* and *Marcian*, and some others, whom that Prince call'd to his Council.

Imperial
Constitu-
tions.

The Constitutions of the Emperors were another Source of the *Roman Law*. There were different Collections made of them at different Times, but the most ancient of these Collections were the *Gregorian* and *Hermogenian* Codes. *Godfroi* believes, that the Authors of these Codes liv'd under *Constantin* and his Children ; for both of them begin with the Laws of *Adrian*, and continue just to *Constantine*.

But it is not certain, whether these Codes were made up by publick Authority or not ; the Manner in which they are quoted, may make it be believed, that the Emperors authoris'd them after they were published (*i*).

The No-
velles.

As for the Codes which appeared afterwards, it is certain they were published by Imperial Authority. *Theodosius* the Younger published his Code *An. Ch.* 435, and confirm'd the preceding ones. Afterwards, the *Novelles* were added to this Code, by the same *Theodosius* and his Successors ; and it was the Law which was observ'd even after the Ruin of the Empire, by the People who had been subjected to the Emperors of the West.

530.

Justinian, who was a whole Century after *Theodosius*, published a Code for the Nations of the East, which was observed in *Greece* also, and in the greatest Part of the Præfecture of *Illyrium* ; and there was nothing changed in the Body of the Law of this Emperor, till the Reign of *Leo* the Philosopher. This Prince, considering that his Subjects under-

stood

(i) Tillem. Hist. des Empereurs, passim.

stood but little *Latin*, order'd a new Edition of all the Books of *Justinian* to be made in *Greek*; this he divided into sixty Books, and are called the *Basilicks*.

In the mean Time, the Barbarians of the The North being established on the Lands of the Northern Na- Empire, became a little more polite by being tions. mix'd with the *Romans*, and would have Laws of their own.

The *Visigoths*, who had seiz'd upon *Spain*, and a Part of *Aquitaine*, collected their ancient Customs: This Collection, which began under (k) *Evarix*, and was carried on to *Egic*, was confirmed *An. 693*, in the 16th Council of *Toledo*.

The *Burgundians* reformed their Law under the Reign of *Gondebaud*, and afterwards made some inconsiderable Additions to it.

The *Ripuarrians*, who inhabited between the *Loire* and the *Meuse*, followed their particular Usages.

The *Franks*, who had plac'd themselves between the *Meuse* and the *Rhine*, observed the *Salick* Law, the Digesting and Confirmation of which, was according to some, the Work of *Childebert* and *Clotario*, Sons of *Clovis* (l).

The *Allemands*, the *Bavarians*, the *Saxons*, the *English*, the *Frisons*, and the *Lombards*, had also their Laws, which had been collected in the Code of the ancient Laws. The Reading of them is not so pleasant at present, but it may be profitable, and some Light, with regard both to Law and History, may be derived from it.

When

(k) He began to reign, *An. 466*.

(l) Fleury Hist. de droit François.

Capitula-
ry of
Charles
the Great.

When *Charles* the Great had subdued and united all these People under his Dominion, he gave them general Laws, known by the Name of *Capitulary Laws*.

The Troubles of the 10th Century put a Stop to the Study of the ancient Law: But it continued to be observed, without distinguishing the different Laws; because there was then no Distinction among the People, who are now united.

This Law was much changed by the Establishment of Fiefs, by the Right of Freedom of Burghs, and by the Augmentation of Ecclesiastical Jurisdiction, and the little Commerce between Countries, which made great Difference in their Customs.

Origin of
Customs.

Such is their Origin, according to a famous Writer (*m*), who wrote first on this important Subject: He adds, that in order to render these Customs unchangeable, they were digested in Writing, and plac'd in three different Classes, *viz.* The Charters of Towns, the most ancient of which was the Charter of the Community of *Beauvais*; the Customs of Provinces; the Tracts of Practicks. To these may be added, the Decisions of *Jean de Mares*; the Counsel of *Pierre de Fontaines*, and his Book to Queen *Blanche*. These Writings serv'd for a Foundation for the famous *Digests*. *Charles VII.* form'd the Project of them, which was executed under *Charles VIII.* and was continu'd down to *Charles IX.*

But the Study of the *Roman Law* was in Use, since the Beginning of the 11th Century. *Irneir* or *Warneir*, who had studied at *Constantinople*, set about the Reading the Books of *Justinian*, excited thereto by the famous Dispute about

(*m*) Fleury Hist. de droit François, N. 19.

about the Word *As* ; and he taught them publicly afterwards at *Bologne* in *Lombardy*. We don't find, however, that this Study made any great Progress during three Ages. But *Gino Caponi* having brought from *Florence* a Manuscript of the *Digests*, which the *Pisans* had found a long time before among the Plunder of *Amalfi*, this Discovery inspired the *Italians* with an ardent Desire for the *Roman Law*. The *Germans* also took to that Study, and the *French* were not the last in applying to it. Lessons of that Law were given at *Montpelier* and *Tholouse*, before the Universities were erected.

It is true, that the flourishing State of this Science, was not before the 16th. Century, and in the time of *Alciat* : The Example of this Lawyer, who had got great Reputation at *Bourges*, invited *Andreas Tiraqueau*, *Franciscus Duaren*, *Charles du Moulin*, *Antony Conte*, *Franciscus Hottomannus*, *Jacobus Cajacius*, and a great many others, to illustrate, by their Commentaries, the different Parts of the *Roman Law*.

As our Manners and Customs are very different from those of the *Romans* ; and as Law must of Necessity take new Turns, according to the different Circumstances of Times ; our Kings have often made *Ordonnances*, or *Decrees*, some of which are in Force, but most of 'em abrogated : But the Knowledge of them is of some Use, whether it be with regard to History, or for the better entering into the Spirit of the standing Laws.

There are several Collections of those *Ordonnances*, but almost all imperfect. The only exact Compilation is that which was begun by Mr. *de Laurior*, and continued by Mr. *Secousse*, in a chronological Order.

Of

Of these Ordonnances or Statutes, some regard certain Points of Law; others turn upon the Preparation of the Process or Suit, in Matters Civil or Criminal; and the most considerable are those of *Louis XIV. An. 1667*, and 1670. The Order of Judging depended formerly on Custom; and that Custom was different, according to the Jurisdictions where the Affair was prepared; the Ordonnances themselves concerning these Matters, were not definite and distinct enough. Every Thing is regulated now, and the new Laws which appear with something of Obscurity, are explained in the learned Writings of those who have applied themselves to penetrate into the Spirit and Meaning of them.

The ordinary Practitioners have introduced a new Kind of Study, *viz.* of the Laws of Arrêts or Sentences; for the Law either could not foresee all particular Cases, or is expressed with some Sort of Ambiguity; therefore, to supply that, wherein it seems to be defective, or to illustrate and explain it, where it is obscure, the superior Courts have established different Maxims, which serve as a Rule in these Cases, and which fix the Law; this has given occasion to the Collecting of those Arrêts which contain those Maxims. There are a great number of those Collections: They are all known; and it must be acknowledged, they are sometimes useful, provided nevertheless that we lay not too much Stress upon their Authority.

On the other hand, the Diversity, and even the Opposition of the Customs, &c. in the different Provinces, are the Occasion of great Difficulties, and of a thousand puzzling Questions; those Questions which are called mix'd, have

have produc'd many Volumes. Some learned Advocates have labour'd these Subjects with Success, and particularly Mess. *Froland* and *Bulenois*.

ECCLESIASTICAL LAW.

LAWS made for the Advantage of the Church make up what we call the Ecclesiastick Law. There are two Sorts of Ecclesiastick Right, one call'd the *Ancient*; which the Church enjoy'd during the first eight Centuries; the *new Right*, which she began to be possess'd of in the Time of *Charles* the Great, and is observed still in these Days.

The Book of Canons of the universal Church, form'd the Ancient Ecclesiastick or Canon Law. It was, to speak properly, a Collection of the Canons of the Four first General Councils, *viz.* of *Nice*, *Constantinople*, *Ephesus*, and *Chalcedon*; and of five particular Councils held at *Ancyra*, *Neocæsarea*, *Gangre*, *Antioch* and *Laodicea*; the Canons also which are ascribed to the Apostles, to the Number of 50, compil'd by an Author altogether unknown, were comprehended in these.

The most ancient Edition of this Code, is that of *Stephen* Bishop of *Ephesus*: It was follow'd by some other Editions all in *Greek*, according to the Use of the *Greek Church*.

As for the Western Churches, they receiv'd at first a *Latin Version* of the Canons. This Version, which is very ancient, and of
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an unknown Writer, was received in *France* and *Germany* down to the ninth Century, while *Rome* and *Italy* followed the Version of *Dionysius the lesser* (n). This Version was much more just, and taken from the last Edition of the *Greek Codes*, and contain'd several Canons wanting in the ancient. *Dionysius* added also to it all he could find of the Decretal Letters of the Popes, down from *Siricius* (s) to *Anastasius II.* (p); for so they us'd to call the sovereign Pontiff's Answer to the Consultations of the Bishops on Points of Discipline.

Such was the Code of the Canons of the *Latin Church*, in the Beginning of the 9th Century. That of the *Greek Church* was at that time considerably augmented: It had 35 new Canons of the Apostles; the Canons translated into *Greek* from the Councils of *Africk*, held in the time of St. *Augustine*; those of the Council 707, 787. of *Trulle*, and of the second Council of *Nice*.

In the mean time, the new Ecclesiastick Law began to be form'd in the West. We have observ'd, that with regard to the Decretals, the Collection of *Dionysius* left a Void of 400 Years. One *Isidore a Spaniard*, to whom some give the Surname of *Merchant*, undertook to fill up that Chasm. The Method he used is most singular: This bold Collector forg'd a number of Decretals out of his own head, which without Ceremony he ascrib'd to the old Popes, the Predecessors of *Siricius*; and as for the other Decretals, which are justly called by the Names of their Authors, he followed a Version prior to that of *Dionysius*.

This

(n) He liv'd in the 6th Century.

(o) He died in 398.

(p) He died in 498.

This Collection of *Isidorus* having been brought from *Spain*, was spread over *Germany* and *Gaul*, by *Riculphe* Archbishop of *Mayence*; and it was shown in the Council of *Aix la Chapelle* in the Year 836, and received in the Capitularies of our King. How gross soever the Imposture of these Decretals was, the Ignorance of that time in Matter of Criticism made them pass for genuine, and, which certainly will appear astonishing, 'tis only in this Age that the old Prejudice is wholly removed.

The Troubles of the tenth Century made the Canons to be forgotten; and when the Study of 'em was renewed, they were obliged to collect them at a new Expence. *Burchard* Bishop of *Worms*, and *Ives* of *Chartres*, made their Collections at different times; and, some Years after, *Boniface*, a *Benedictin* Monk of *Bologne*, published his Collection; he did not forget the false Decretals, and he added several Passages of the Fathers to the Constitutions of the Popes: *Gratian* call'd his Work, *The Concord of the discordant Canons*, a Title which answers the Design of the Author, to reconcile Authorities which seem sometimes to clash with one another. This is what is now call'd, *The Decree*. As soon as it appear'd, it was look'd upon as the only Body of the Canon Law.

There were many Collections of the Decretals since the *Decretum* of *Gratian*; but the only Collection which has preserv'd its Authority, is that of *St. Raymond de Penafort*, a *Catalonian Dominican*; it was compos'd in 1334, by the Order of *Gregory IX*. It contains the Decrees of the General Council of *Lateran Anno 1215*, and the Decisions of the Popes, distributed into five Books, according to the

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different

different Matters. This Collection goes only Decretals. by the Name of *Decretals*.

After this *Boniface VIII.* in 1298, and *John XXII.* in 1317, caus'd to be publish'd the Constitutions of *Innocent IV.* of *Gregory X.* and of *Clement V.* made in the two General Councils of *Lyons*, Anno 1245 and 1274; and in the General Council of *Vienna*, 1311. Of these two Collections, the first is called, *The Sixth*, because it is in place of the sixth Book of the Decretals; and the second is call'd *Clementines*; but the sixth has little Credit in *France*, because of the Differences between *Boniface VIII.* and *Philip the Fair*.

The Constitutions of *John XXII.* and the following Popes, and those of some former Popes, pass under the Name of *Extravagantes*, from the *Latin Word*, *to wander about*; which shews, that they were never in any of the other Collections.

After this manner, the Body of the Canon-Law increased to a huge bulk; and many new Ecclesiastick Laws were established, which were unknown to Antiquity; but Ignorance, the Corruption of Manners, the Sovereignty of the Popes, and the Temporal Authority of the Bishops, brought them into the Discipline. To all these Causes, the great Schism of *Avignon* may be added (*r*), during which, Dispensations and Censures became very frequent. A famous Author, whom I have followed as my Guide in this Article, says, “That during the
“ Schism, the Church of *France* always declared
“ that she would maintain her ancient Liberties,
“ and reject whatever was introduc'd in the
“ later

(*r*) *About the End of the 14th Century.*

“ later Times by the sole (s) Authority of the
 “ Popes, against the ancient Canons.”

The Councils of *Constance* and of *Bale* resolv'd to correct those Abuses; and while the Council of *Bale* was sitting, the *French* Prelates assembled at *Bourges* in presence of *Charles VII.* They acknowledg'd the Council of *Bale* for a lawful Council, and received several of its Decrees with some Modifications.

The *Pragmatick* published in *France*, and the *Concordat* pass'd in *Germany* in the 1477, under the Emperor *Frederick III.* regulated the Disposition of Benefices. But the *Pragmatick*, which was taken from a Council odious to the Church of *Rome*, yielded in some Points, after long Resistance, to a Regulation, which was made at *Bologne* in 1516, between Pope *Leo X.* and *Francis I.* King of *France*.

Thus *France*, which was always on its guard against the Novelties introduced by the *ultramontain* Canonists, preserv'd its ancient Usages, which are call'd, *The Liberties of the Gallican Church*. They depend principally upon two Maxims, viz. 1mo, That the Power of the Church is altogether Spiritual, and does not extend to the Temporal. 2do, That the Plenitude of the Pope's Power ought not to be exercised but in Conformity to the Canons(t). As for the other Countries of Christendom, the Tribunals of the Inquisition, and the Remembrance of the Disorders which the Contests between the Emperors and Popes occasion'd, have hindered them from asserting their Rights, as *France* has done.

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(s) Fleury, *Inst. du Droit Eccles.* Part I. ch 1.

(t) Ibid. Part III.

T H E O L O G Y.

HAVING spoke of human positive Law, which is the Object of Ecclesiastick Law, and regards Discipline, we pass on to divine positive Law, as it is contained in the Scriptures, which is explained by the Tradition of the Church, and concerns the Faith and Rule of Manners. That part of it, which turns principally upon the Tenets and Doctrines, is called Theology. Its Principles are unchangeable, because they are so many eternal Truths; but the Manner of teaching them has been different according to the Times.

Israelites.

The Belief of the *Israelites* was the same with ours, except, that some of the Truths which it contains, tho' already revealed, were delivered to them in a certain obscure Manner, and the others were clearly proposed, and these were Matters of publick and private Instruction and Duty. The First were given them in the *Synagogues*, that is, Assemblies which are held in every Town on their Sabbath Days. There the Priests, and sometimes the Prophets, taught and explain'd the Law of God to all the People; but this publick teaching did not dispense with the Fathers of Families expounding to their Children the fundamental Articles of their Religion, nor exim'd any Body from continual Study of the Law (*u*).

Primitive Christians.

The Method of the Primitive Christians was much the same. They heard the Apostles with Reverence, who spoke to them sometimes in publick,

(*u*) Deuter. c. 6. v. 7. &c. Mœurs des Israelites, 15. 20.

publick, sometimes in private: They read the Scriptures carefully, and conferred with one another.

During the six first Ages, there were no other publick Schools but the Churches, where the Bishops explained the Holy Books. Their Method of Preaching the Gospel appears from St. *Chrysostom's* Homilies, the Sermons of St. *Augustin*, and several other Fathers. They also publish'd some Writings from time to time against the *Pagans* and *Hereticks*: Such as *Justin Martyr's* Advice to the *Gentiles*, and *Atbanasius's* Treatises against the *Arians*.

The *Pædagogue* of *Clemens Alexandrinus* shews with what Care the Bishops instructed the *Catechumens*, that is, those among the *Infidels* who desired to become *Christians*: They took particular Care of the Education and Learning of the young Students; and therefore it is, that we find so many learned Bishops came from their Schools. The Bishops of great Sees were obliged sometimes to trust the Priests with a Part of the Education of the Youth. The Bishop of *Alexandria*, for Example, who govern'd a numerous People, established a School in that Town, particularly in Favour of the *Catechumens*, which became very famous, and where *Clemens* and *Origin* were educated, and were its Ornament, and afterwards made many excellent Disciples.

As to the Doctrines which the Fathers taught, either by Word of Mouth or by Writing, they may be reduced to five principal Heads, viz. The Interpretation of the Scriptures, the Articles of Faith, the Christian Morality, the Discipline of the Church, Monastick Morals and Discipline.

Study of all kinds slacken'd after the Ruin of the *Roman* Empire by the Barbarians, and Ignorance increased apace. But Providence preserved Religion; and, bad as these Times were, the Authority of the Scriptures, and the Traditions of the Church subsisted and were respected; and in a short while after, there arose some grave and learned Doctors in the Church, as *Beda*, *Rabanus*, *Hincmar*, *Gerbert*, &c. whose Labours did great service to Religion, tho' for the most Part they did little else but compile, copy, or abridge the Fathers. This Method, if it shew'd but little Genius, served to propagate the true Doctrines of the Church, and to clear up a little the Darkeness of Ignorance, which had spread over the *Western* World.

The Bishops either taught themselves, or made others teach for them; for by their Orders the Clerks and learned Monks kept School in the Cathedral Churches and Monasteries. The School of *Rome* was the most famous of any in the *West*, and continued so till the Pontificate of *Gregory*; when it began to decline, as Pope *Agathon* tells in his Letter to the Fathers of the sixth Council (x).

In the mean time *St. Augustin* and other Monks, whom *St. Gregory* sent into *England* to preach the Gospel, made the Study of sacred Letters flourish there. *England* became learned in a very short time, and able to furnish other Countries with learned Men; it gave *Boniface* to *Germany*, and the famous *Alcuin* to *France*; the one form'd the School of *Mayence*, and Abby of *Fulde*; the other laid the Foundations of the School of *Tours*; and from this School came the Schools of *St. Germain*
of

(x) Fleury, Hist Eccles. Liv. XI. N. 5.

of *Paris*, *St. Germain of Auxerre*, the School of *Corbie*, of *Rheims*, and of *Lyons*: *Charles the Great* ordered, that in the Cathedral and Abby Churches there should be two sorts of Schools; the Inner Schools for the Clerks and Monks, the other for Secular Scholars. *Benedict of Anian* seconded these pious Intentions of the Prince, and appointed Masters for Grammar and Musick in all the Monasteries, and made the Monks set about copying of Books, from which Task they were called *Literarians*, and in a short Time they made good Libraries in every Monastery.

Paschasius Ratbertus, *Lodovicus Servatus*, *Adon* and *Ratram* directed the Studies in several Districts, and did great Service to the Church by their Conduct and Learning. About this time the *Normans* invaded the *Maritime* Provinces of *France*, and laid all waste before them, and drove Learning and learned Men out of that Country, who were forced to take Shelter in *Germany*, where they erected Schools, and flourish'd under the Reigns of the *Othons*. At length the Universities of *Paris* and *Bologne* ^{Universities} were form'd, which served for a Model to the other Universities which were formed afterwards; Colleges were also founded in most ^{Colleges} Towns which had not Universities.

It is certain, that the Establishment of Universities and Publick Schools was very useful; but it is also true, that from that time the Bishops gave over teaching, and the young Ecclesiasticks were turn'd over to the Doctors of the Schools, to be taught the several Parts of Learning as well as Theology. Afterwards Seminaries were instituted for the Education of ^{Seminaries} the Students of Divinity particularly, which

continue till this Day, where they are taught under the Inspection of the Bishops.

Scholastic Theology. Theology was taught for several Ages in the Scholastick way; but this Method changed with the Times, which made a famous Writer (y) distinguish three Ages of the Scholastick Theology; the first, from *Abelard* to *Albert* the Great; the second, from *Albert* to *Durand* of *St. Pourçain*; the third, from *Durand* to *Gabriel Biel*.

In the second Age, *St. Thomas* and *Scotus* introduced into the Schools the Principles of the Dialectick and Metaphysick of *Aristotle*; but they followed different Methods; and *Ockam*, forming himself upon the Ancient Nominalists, made a third Party. *Durand* of *St. Pourçain*, who was Bishop of *Meaux*, took the Liberty of the Ancient Academicians, and tied himself down to no Form of Doctrine, but took from the different Schools and Ways of Teaching what he thought proper, and advanced a Number of new Opinions.

Good Taste revived with the third Age, and barbarous Terms and Questions of no Moment were laid aside: *Peter d'Ailly*, *John Gerson*, *Nicolas Cleimangies*, *John de Turrecremata*, taught Divinity in a solid Manner. The two following Centuries were remarkable for the Works of Criticism upon the Scriptures, for learned Commentaries, for useful Inquiries into Ecclesiastical Antiquities, and for intire and regular Systems of Divinity; as also for Doctrinal Questions according to the Method of the Fathers.

(y) Dupin, *Bibliothèque des Auteurs Ecclesiastiques*, *Siecle XIV. chap. 5.*

S C U L P T U R E.

THE Design of Sculpture was principally to perpetuate the Memory of great Men, and was invented in *Egypt*. The *Egyptians*, as *Egyptians*, they were a good-natur'd People, were very sensible of good Offices; and in particular, their Gratitude was remarkable towards their Kings who used them well. The first Monuments of this Nature, that are recorded, are two colossal Statues; the one erected in Honour of *Mæris* their King, the other in Honour of the Queen his Wife, plac'd upon two Thrones, supported by two Pyramids, which were rais'd three hundred Foot high, in the Middle of a Lake; and they occupied the like Space under Water; so that notwithstanding the Extent of the Lake, which was 180 of our Leagues in Circumference (z), these two Statues were conspicuous at a great Distance. This is the Origin of *Colossus's*, *Origin of* which the *Egyptians* invented and erected to *Colossus's*, preserve the Memory of their good Princes; but which, in other Parts of the World, afterwards were erected, sometimes, as Monuments of Impiety.

The *Egyptian* Sculptures excell'd chiefly in the Justness of Proportion; they carried that Justness so far, that after having separately cut the Stones which were to form the Statue, those loose Pieces, and which oft-times were not cut by one Hand, when join'd together, made the perfect Statue appear, as if it had been made of one solid Piece (a).

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(z) Bossuet, Hist. Univer. Part 3d, Art. 3d.

(a) Sethos, Additions.

The Care the *Egyptians* took to cultivate this Part of the Art concerning Proportions, and which is indeed the most important or essential, made them probably neglect what we call the fine and embellishing Part, which we admire in the Works of the *Greeks*. Indeed the Bas-reliefs which are yet to be seen on the ancient Buildings of *Egypt*, the Figures which adorn their Obelisks and their Mummies, have nothing in them that is fine ; if, sometimes, one meets with a Sphinx of a singular Beauty, it has certainly been made by a Stranger ; or, if it was made by an *Egyptian*, Sculpture must have been brought to good Perfection in the latter Times of their Empire.

Israelites. The *Israelites* and their neighbouring Nations were not ignorant of this Art, as is plain from Scripture ; the Idols of *Laban*, which *Rachel* carried off ; those of *Bell* and of *Dagon* ; the *Brazen Serpent* ; the *Cherubims* of the Ark, &c. All these Figures, it may be thought, were cast in a Mould ; and therefore not to be given as Examples of Sculpture. But allowing it was so, they show still that the *Israelites* knew Sculpture ; for Sculpture teaches Moulding, which is the Foundation of the Art of Founding of Metals.

Greeks. The *Greeks*, if we may believe them, were the Inventors of Sculpture, and ascribe the Invention to one *Debutadis*, whose Daughter gave Rise to the Art of Painting, by tracing out the Image of her Lover from a Shadow, which the Light of a Lamp made upon the Wall : But, as we have already given an Account of the Origin of Sculpture from History, we are not to mind this *Grecian* Story of *Debutadis*.

butadis and his Daughter, which has very much the Air of a Fable.

We may believe, that this *Debutadis* was a Potter, as were also *Ideocus* and *Theodorus* of *Samos*, who, as some think, were more ancient than *Debutadis*. It is at least certain, that *Calcoesthes* the *Athenian*, *Demophilus* and *Gorsanus* were Potters; and if we consider that all the Arts had but weak Beginnings, we shall have no Difficulty in believing, that Figures of Earth or Clay preceded those of Stone and Metal (*b*).

Plutarch informs us, that the *Lacedemonians* were the first that made use of Wood to make Statues, which is a Proof how rude the Art was in the Beginning; they made the Statues of *Castor* and *Pollux*, those two Brother Twins, of Wood, and held these two wooden Deities in great Veneration; but all the Representation they made of them, was by setting up two wooden Posts join'd together by a Cross-Beam at the Top; these were their famous *Docanes*, one of the principal Objects of their Worship.

Dædalus brought Sculpture to a certain Degree of Perfection when he return'd from *Egypt*, where he was taught it; he instructed the *Grecian* Artificers in some of the nice Parts belonging to this Art; as for Example, he taught them to imitate in their Statues the Attitude of a Man, who is in Action and Motion. *Dædalus* did not stop there; he made a wooden *Venus* which mov'd, which was a surprising Thing in those Days; but all the Wonder lay in the *Mercury*, which the Workman put
withi_n

(*b*) Felibien des Avaux. Principes de l'Architecture, de la Sculpture, &c. Liv. 2. Ch. 1.

within the Figure, and made it play. However, the good People being persuaded of the Presence of the Divinity by the Motion of the Figure, and being afraid their Gods should escape and leave their Temple, they bethought themselves of a Stratagem pleasant enough, which was to chain them; the Statues which *Dædalus* made were the finest of any, and, as *Plato* says, fetched the greatest Price.

This Art, nevertheless, was as yet very imperfect in *Greece*; and they had no other School to be instructed in it but *Egypt*, whither all their Students of Sculpture went. *Telicles* and *Theodorus* the Son of *Ræcus*, were the most famous in those Times; they made the famous Statue of *Apoapythius* at *Samos*, of which *Diodorus Siculus* speaks (c). This Figure, which was admir'd for the Justness of its Proportions, serv'd for a Model to the Statuaries, and help'd to carry the Art to that Degree of Perfection it was remarkable for in the Time of *Pericles* (d). *Phidias* the *Athenian*, who lived at that Time, surpass'd all those who had appeared before him, in the Statuary Art, whether he wrought in Marble, or in Ivory, or Metals. He made a golden Statue of *Minerva*, the most famous of all those of Antiquity.

At that Time the Exercises of Body, as Jumping, Wrestling, &c. were brought to the greatest Perfection in *Greece*. As they strengthened the Body, and were performed naked, they were of great Use for advancing the Art of Sculpture, because they furnished excellent Models to work by; so that it is no Wonder that Sculpture was brought so soon

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(c) Lib. i. *in fine*.

(d) Sethos, Additions.

to the greatest Perfection in Greece, and that it abounded with so many excellent Sculptors, who have never yet been equall'd in the World, as is plain from what remains of the Grecian Sculpture.

Polycletes made Statues at *Sicyon* in the *Pe-loponnesus*, which the greatest Artificers strove to imitate. *Myron* managed the Chisel with so great Dexterity, that he seemed to give Motion and Life to his Works. *Lysippus* had the Preference of all his Competitors, for casting the Statue of *Alexander* the Great in Brass. *Praxiteles*, amongst other Figures, made that beautiful *Venus* which was carried to the Isle of *Coos*, and is at this Day one of the principal Ornaments of the Gallery of *Versailles*: The Horses, which are seen at *Rome* before the Palace *De Monte Cavallo*, are done by the same Hand, and by the celebrated *Scopas*. *Briaxes*, *Timotheus* and *Leochart*, bestowed all the Riches of their Art upon the famous Tomb of *Mausolus* King of *Caria*. This Work, which was one of the Wonders of the World, is not extant, so that we cannot judge if it deserved all the Praise the Ancients bestowed upon it; but the *Laocoon* of the *Belvedere* is a Proof of their Sincerity and exquisite Judgment, when they boasted so much of that admirable Groupe (e). This Piece of Work is commonly said to have been made by *Agessander*, *Polydorus* and *Athenodorus*.

They who have the Curiosity to know the Names, and the Works of other Sculptors, may consult the Histories which have been written of that Art; but nothing is more proper for giving a just Idea of the Excellency of the Grecian Sculpture, than the Antiques which
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(e) Plin. Hist. Natur. Lib. 35.

may be seen in *Italy*, and which we have taken off perfectly in Moulds; such as is, amongst others, the *Hercules* of the *Palais Farnese*; the Workman, by his Representation of the Muscles of this Heroe, gives us a great and just Notion of his Strength, and at the same time he expresses also by natural Strokes the tired and spent Condition he was in at the Time.

Such are also the *Myrmillo* of the *Palais Chigi*, where you see the ingenious Mixture of Life and Death in the Statue of an expiring Wrestler; the *Venus* of *Medicis*, which is a perfect Imitation of the most perfect natural Beauties. The *Antinous* of the *Belvedere*, the *Flora* of the *Palais Farnese*, which is of a wonderful Gayety and Lightness; the *Papirius Prætextatus* of the Vineyard *Ludovici*; the *Rotator* of *Florence*, who is thought to be either the Freedman, who, according to the Account of *Tacitus*, discover'd a Conspiracy against *Nero* (f), or the Slave, who, according to *T. Livius*, discover'd and reveal'd the Plot of the Sons of *Brutus* for the Restoration of the *Tarquins* (g): All these Figures are admirable, both for the Expression and for the Correctness of the Design: But nothing is more interesting and affecting than that Piece of the Fable of *Niobe*, which is to be seen in the Vineyard of *Medicis*, made up of several Statues joined together in the same Action.

Sculpture, which was thus carried to the utmost Point of Perfection, like all other things, did not abide long in its perfect State: for to reckon from *Phidias* it lasted only fifty Years,

then
(f) M. Piganiol de la Forie. *Nouv. Descrip. de Versailles*.

(g) Abbe des Bos. *Reflexions Critiques sur la Poësie*, &c. Sect. 38.

then it began to decline. About that time *Rome* pillaged *Athens* and all the Towns of *Greece* of their most precious Ornaments: the Theatre of *M. Scaurus* alone was ornamented with three thousand *Grecian* Statues of Brass. It is well known, that *Mummius* and *Lucullus* brought a vast Number of Statues from *Greece*. After the *Greeks* became subject to the *Romans*, they lost by little and little their noble Sentiments, and that fine Taste which so distinguished them from all other People; and the fine Arts fell into Decay, for they cannot live in Slavery.

The *Romans* knew Sculpture before they *Romans* were acquainted with the *Greeks*. *Demaratus* brought *Eucirapus* and *Eutigrammus* with him into *Tuscany*: his Son *Tarquin* afterwards brought *Taurianus* to *Rome*, who made an Earthen Statue of *Jupiter*, and the four Horses which that Prince caused to be put on the Frontispiece of the Temple of that God (b). These are probably the first Pieces of Sculpture which were seen at *Rome*: This Art however made considerable Progress in this City; and when *Marcellus* had taken the Town of *Syracuse*, he carried off and brought to *Rome* some Statues, of which that Town had a great Number. Then it was that the *Romans* began to have a Taste of Sculpture, and to send to other Parts for good Masters of that Art, in which they became tolerably skilful themselves; but it don't appear that they did any thing perfect in that Art, till the Reign of *Augustus*: The statue of *Julia* his Daughter, is remarkable for the Beauty of the Drapery, which

(b) Felibien des Aveaux, Princ. de l'Architecture, Liv. 2. chap. 1.

which (i), is perfectly well cast, much better than the Drapery of the Antiques of After-Times. You may also reckon among the perfect Pieces of *Roman* Statuary, the Statue of *Augustus*, which is to be seen at *Versailles* near the grand Canal; the Bust of *Agrippa* his Son-in-Law, which is in the Gallery of the Great Duke of *Tuscany*; and the Bust of *Cicero* in the Vineyard *Mathæi*.

Under the following Emperors, Statuary declined insensibly, and had something in it, I don't know what, dry and immoveable; it was yet much worse in the Beginning of the fourth Age, when they erected a triumphal Arch to *Constantine*; it was at the Expence of the Arch of *Trajan*, which they robb'd of its Bas-Relief to adorn the other. The little Skill they had to adjust these deplac'd Ornaments, makes it easy to judge how ignorant they were of Sculpture at that Time. It is true, that the *Romans* did not excell in Bas-Reliefs; for, except the *Danseuse* of the *Louvre*, you can't find any thing that may be looked upon as perfect Models. This is the Opinion of an *Academician* well versed in these Arts (k):

“ The Ancients, says he, knew only to cut
 “ Figures of a round Bos by the Middle, and
 “ to Plaster them as it were upon the Bottom
 “ of the Bas-Relief. Besides, those Parts of
 “ their Figures, which were sunk, lay too far
 “ from the Eye.

Gotbick.

It is to no great Purpose to speak of the *Gotbick* Sculptures; for every Body knows that they are the Works of a rude Art, form'd in spite of Nature and Rules; sad Productions of barbarous and dull Spirits, which disfigure
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(i) This Statue is at *Marly*.

(k) *Abbe du Bos. Reflect. Crit. sur la Poës. &c. Sect. 51. first Edit.*

our old Buildings and our ancient Churches. Those who have not the Opportunity of being convinced of this by seeing the Originals, may look into the Monuments of the *French* Monarchy, published by Father *Montfaucon*.

The *French* and *Italians* improved in Sculpture much about the same time; for when *Michael Angelo* filled *Rome* with his Works under the Pontificate of *Leo X.* and of *Julius II.* *John Gougeon* embellished *Paris* with his Master-piece under the Reign of *Francis I.* and *Henry II.* The *Bacchus* of *Michael Angelo* is well known; it deceived *Raphael*, who took it to be a Statue of *Phidias's* or of *Praxiteles*. On the other hand, all *Paris* admired the famous *Cariatides* of *Gougeon*, which the illustrious *Sarrafin* thought worthy of his Copying. At *Rome*, *Daniel de Volterre* enriched the Chapels of *St. Peter* in *Montorio* with his fine Statues. *L'Algarde* shewed how capable the Chisel was of imitating Action, by his representing *St. Peter* and *St. Paul* threatening *Attila*. The *Cavalier Bernin*, the worthy Successor of these great Masters, made the Fountain of the Place *Navonne*; *St^a Tereza* in an Extasy, an admirable Work in Point of Expression; the Bust of *Levis XIV.* which is to be seen at *Ver-sailles*, and in which the Character of that great Prince is as well expressed as the Features of his Face; and the Horse of *Marcus Curtius*, infinitely more fine and perfect than the Horse of *Marcus Aurelius*, and even than the Horses of *Monte Cavallo*, which their Inscriptions falsely ascribe to the most famous Sculptors of antient Greece (1).

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(1) *Phidias* and *Praxiteles*.

Flemings.

The *Flemings* apply'd themselves to Sculpture, and succeeded very well in it. Not to mention those that are yet alive, *Erard* of *Lege*, *Buister* of *Brussels*, *Le Fevre* and *Laviron* of *Antwerp* are well known in *France* by some Works which they did for the King. *Gibbons* and *Rootier* also of *Antwerp* wrought in *England*, and *Rootier* made Medals of *Charles II.* and *James II.*

In *France*, *Sarrafin* made Sculpture revive, which the long Continuance of the Civil Wars had almost extinguished, and recovered it to its former Beauty. In the Year 1640 he made a Group which is very much esteemed, and is to be seen at *Marly*, which represents two Children, who are diverting themselves with a Goat; he afterwards adorn'd some Churches of *Paris* with his Works: the most remarkable are, the Tomb of Cardinal *Berulle* in the *Carmelites* of the *Fauxbourg St. Jaques*, and that of *Henry* of *Bourbon* at the House of the *Jesuits*. *Sarrafin* made Scholars who brought the Art to great Perfection.

The *Anguiers* gave the Medals of *Mercury* and *Amphitrite*, which have been since executed in Marble, and which adorn the Groves at *Versailles* and *Marly*. *Baltazar* and *Gaspard Marfy* seemed to have exhausted all the Finery of their Art upon the Ravishing of *Orythia* by the *North Wind*; upon the Giant *Enceladus*, a Work full of Strength, and altogether according to the Taste of *Julius Romanus*; but chiefly upon the Group of the two *Tritons*, which water the Horses of *Apollo*, an admirable Piece, which comes up to Nature itself. *Des Jerdins* made himself famous by a great many Works. *Poujet* did not so many, but all

all he did were excellent; you may take for Example his *Perseus* who deliver'd *Andromeda*, and *Milon*, the *Crotonian* Champion: there the Chisel seems to animate the Marble, and to give it the Passions which are suitable to those two different Subjects. The Bas-Relief of *St. Charles* is a Piece, which wants nothing but Colouring; the Airy Perspective, which was unknown to the Ancient Sculptors, is there very well observed. *Poujet* put in his Pieces more of the Expression, and *Gerard* more Grace. The Tomb of Cardinal *Richieu*, the Ravishing of *Proserpine*, *Apollo* with *Thetis*, &c. are Pieces of a singular Beauty, and of a Correctness in the Design, of which the best Sculptors are oft times but little capable. Thus this Art has of a long time passed from the *Italians* to the *French*; and they have been oft obliged to borrow our Workmen for Works of Consequence (m).

(m) Poujet, Theodor, Le Grop.

P A I N T I N G.

SCULPTURE and PAINTING, the Daughters of DESIGN, have each of them their own proper Advantages: The one gives a Relief to its Figures; the other observes the different Tinctures of Bodies; and, to make its Figures resemble Nature, it employs Colourings.

Egyptians. The Invention of Painting is owing to the *Egyptians*; at least, as to the four principal Colours. The Knowledge they had of Chymistry seems to make this Opinion certain: Besides, the Paintings which Travellers have occasion to see in the old Remains of the *Egyptian* Buildings, which have resisted so long the Injuries of Time, and which still retain a fresh and lively Colouring, seem to be a good Proof (*n*). Nevertheless, it cannot be inferr'd, either from these ancient Monuments, or from the Testimony of Authors, that the *Egyptians* were good Painters. On the contrary, *Petrarch* says plainly, that they never made good Painting, and that they spoil'd the Art.

Greeks. Painting pass'd very soon from *Egypt* into *Greece*, where afterwards were form'd the Famous Schools of *Lycion*, of *Rhodes*, and of *Athens*.

Zeuxis represented the Family of a Centaur, in a Picture, whose Composition was very well imagin'd (*o*). It is known, with what Eagerness he engag'd in the Competition with *Par-*

(*n*) Voyages de Paule Lucas, Tom. 6. p. 69.

(*o*) Lucian, in his *Zeuxis*.

Parrhasius (p); and the Event of that most singular Dispute is very well known.

The Ancients (q) extol the Wisdom of *Timantes*, who, when he had exhausted all the Expressions he could make of the deepest Sorrow, by painting the Mother and the other Witnesses of the Sacrifice of *Iphigenia*, drew *Agamemnon* with his Face veil'd, to mark, that it was impossible for him to express the Condition of the unhappy Father, who was forc'd to offer up that innocent Victim.

What is surprising, is, That these First Painters, among whom *Polignotus* is reckon'd, made use only of four Mother-Colours, which they had borrow'd from the *Egyptians*. They were *Echion*, *Nicomachus*, *Protogenes*, and after them, *Apelles*, who imitated with compounded Colourings all the Shades of Nature.

The last is the most illustrious: His *Venus* became so famous, that it has been believ'd to have contributed more to the Worship of that Goddess, than all the Fables of the Poets. Painting flourish'd greatly at that Time; and if we can rely upon the Testimony of *Pliny*, the *Greeks* had arriv'd to that Skill in the Art, as to paint the Movings of the Soul, and to give Sentiments to dumb Figures. For a Proof of this, he quotes a Picture which represented a Woman pierc'd with a Poignard, and whose Child still suck'd at the Breast. This Picture was drawn by *Aristides*; the first, says he, who brought the Handling of the Pencil to so great Perfection. *Lucian* supports this Account, in the Description he gives of the Marriage of *Alexan-*

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dcx

(p) Plin. Hist. Nat. lib. 35. cap. 10.

(q) Quintil. Inst. Orat. lib. 11. cap. 14.

der and *Roxana* (*r*), painted by the same *Aristides*, and which he describes with all the Graces of Invention, and the finest Allegories.

Ausonius rises very high in his Commendations of these Two Painters, when he speaks of *Medea's* raising the Poignard against her Children. We may believe 'em; for there is nothing to contradict 'em: For none of the Pictures of the ancient *Greeks* have come to our hands; only we must take care not to confound the Times.

It must be remark'd, that the *Greeks*, with all their Skill, were not able to fix the Art of Painting, and preserve it in that Degree of Perfection to which *Apelles* had brought it; and that under *Augustus* that Art had degenerated very much. The Painters were so charm'd with the new Art of Colouring, that they neglected absolutely at that Time the DESIGN: and by an unskilful Choice, they prefer'd the *Brilliant* or *Gaudy* to the *Solid*, and *Counterfeit* or *False* to *Natural Beauty*.

'Tis *Dionysius* of *Halicarnassus*, who informs us of this Change: He was Connoisseur enough to judge of the Merit of the ancient and new Painters. The Testimony of a *Greek* Author ought to be receiv'd, when he speaks without Prejudice of the *Greeks* his Cotemporaries.

Romans.

The *Romans* had a Taste for Painting a long time before this; and *Marcellus* gave occasion to it, by transporting to *Rome* all the rare and valuable Pieces of Painting he found among the Spoils of *Syracuse*. The
Ro-

(*r*) In *Herodot.*

Romans had a strange Inclination for this fine Art ; particularly towards the End of the Commonwealth, and under the first Emperors.

It appears nevertheless, by the ancient Writings, that the Painters at this Time were very much inferior to those of *Greece*. *Vitruvius* reproaches 'em for not observing always in their Works a certain Adjustment, and for abandoning themselves a little too much to Imagination, without the Government or Rules : Whence came all those Whims and monstrous Ideas, which at this Day are call'd *Grotesque* : And from thence the *Mosaick*, or Assemblages of little colour'd Stones and Bits of Glass, sorted and join'd together, which are to be seen in so many Parts, and especially at *Palestrine*.

What remains of the Painting with the Pencil in those Times, is so little, that one cannot judge aright of the Merit of their Painters. The Piece which is the most considerable, is That of a Marriage in the *Aldobrandin* Vineyard : It is boldly executed ; but the *Nymphaea* of the *Palais Barberini* cannot be compar'd with the Landskip of *Pietro of Croton* ; and the modern Paintings would surely eclipse the *Figurines* of the Tomb of *Cestius*.

This Art was buried a long time in the West, under the Ruins of the *Roman* Empire : It was preserv'd with greater Care in the East, though it had lost much of its ancient Splendour.

Cimabue, about the middle of the 13th Century (s), with the Help of some *Florentines*,

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(s) He was born 1244.

tines, recover'd it in a great measure, and shew'd greater Skill in the Art, than the *Greeks* who were his Masters. Till that Time there had been no Painting, but in *Fresco* and Water-Colours. In the Beginning of the following Age, *John Van-Eyck*, a *Fleming*, who is commonly call'd *John of Bruges*, found the Secret of Painting with Oil (*t*).

They began to paint in Oil in the 14th Age.

People were very soon sensible of the Usefulness of this Invention. Colours were preserv'd a long time; they receiv'd a perfect Mixture, and a sort of Varnish, which they could not before give to Pictures. They began then to copy Nature, but not to embellish it: They design'd correctly, but after a dry manner, which had still something of the *Gothick*.

Italians.

Ghirlandajo painted in this Taste: Though he surpass'd all the Painters of his Time, all his Merit consisted in this, That he was the Master who form'd the Celebrated *Michael Angelo* (*u*). Pope *Julius II.* rais'd the Ambition of this young Painter, by his great Rewards: As he excell'd all that had been before him, he became the greatest Master of that Art in his Time: He excell'd in the *Design*, and establish'd his School at *Florence*. Tho' his Scholars had all follow'd their Master's Manner of Painting, *Sebastian of Venice* (*x*) deserves to be taken notice of particularly; and his Picture of *Lazarus* will always be regarded as one of the most perfect which came from that School.

School of *Michael Angelo*, or of *Florence*.

School of *Raphael*, or of *Rome*.

The School of *Rome*, which was compos'd of the most Excellent Painters, ow'd its Origin

(*t*) *Felibien*. Princip. lib. 3. cap. 5, & 6.

(*u*) *Born in 1474.*

origin to *Raphael*, who was born at *Urbino*, Anno 1483. *Raphael* was the Scholar of *Peter Perrugin*, and the Competitor of *Michael Angelo*, and surpass'd them both in Painting. He taught the First many things, which he put in practice when he painted the Chapel of *Sixtus*; and his Picture of the *Transfiguration* was a Master-piece of Art, and eclipsed the finest Performances of his Competitor.

Julius Romanus (y), the belov'd Disciple of *Raphael*, and Ornament of his School, cultivated with great Care, that which is call'd *The Poesy of Painting*. What Nobleness, what Fertility of Invention! What Force of Thought and Spirit! Every body at first View knows his Pencil by the bold Expressions which seize upon and astonish the Mind. We have very few of his Works: The *Triumph of Titus* and the *Circumcision*, are the most remarkable.

Perrin del Vague, another Disciple of *Raphael*, followed the Manner of his Master: He painted the *Muses* and the *Picrides* in a little Piece, which may serve for a Proof of what I say.

To the School of *Raphael* succeeded That of School of the *Carachios*, which has continu'd to this pre-^{the Carachios.}sent Time, and which may be call'd *The Second and Last Age of the Roman School*. The Choice which it has always made of moving Subjects, and a certain tender and gracious Air in its Paintings, which pleases wonderfully, makes up its Character.

Hanibal Carachio was more famous than his Brothers: He design'd admirably, and with a great Taste. He left behind him many Scho-

(x) Otherwise call'd *Fra del Piombo*. He dy'd Anno 1547.

Scholars ; and amongst others, *Guerchin*, *Alban*, *Lanfranc*, *Dominico*, and *Guido*. *Guerchin* distinguish'd himself only by the Correctness of the Design : *Alban* painted the Nymphs and Goddeffes with great Grace, and formed *John Baptist Mola*, who was excellent at Landskip. *Lanfranc* painted in *Fresco* such beautiful Pieces, as were unknown since the Days of *Raphael*. *Dominico* excell'd in the Expression. This important Part of the Art of Painting shines forth in his *St. Paul*, *St. Jerom*, and *David*. *Guido* united two Things, which do not seem to be made for one another, *viz.* Sweetness and Strength. In most part of his Figures there is a fine Arrangement of the Parts, and a fine Air of the Head. In short, *Charles Maratte* of our Time, has re-traced the most beautiful Strokes of the Old Masters.

School of
Lombardy. At the same Time that the *Roman School* began to be form'd, *Giorgion* and *Titian*, who were taught by *John Bellini*, establish'd the School of *Lombardy*. *Giorgion* dy'd in the Bloom of Youth, and left few Works behind him. *Titian* liv'd till he was an hundred Years old, and made himself belov'd and esteem'd by all the Princes of *Europe*. He taught *Lambert Zustrus* and *Old Palm* ; and he shew'd the Painters that were to come after him, the Art of flattering the Eyes by the Richness and Trueness of the Colours : An amiable and bewitching Art, which had been a little too much neglected.

School of
Milan. These were the Three first Famous Schools for Painting in *Europe* ; which gave Birth to a great many others. The School of *Milan* flourish'd under *Leonard de Vinci*, Disciple of
Andreas

Andreas Verraccio, who was so well known by the Picture of *Lisè*. *Andreas Solario* and *Jacobus Pantormus* were Scholars of *Vinci*.

On this side the *Alps*, *Holben*, who was a *Swiss*, became very famous ; and ow'd to no Master, but his own Genius, the great Knowledge he attain'd to in the Art of Painting. As for the Colouring, he perform'd better than any of the Painters in the *Roman School* ; and he was almost their Equal in the Composition.

Albertus Durer rais'd the Reputation of the School of Art of Painting in *Germany*, which before him had been but little understood there. The School of *Antwerp* became very famous ; and *Rubens* was its principal Ornament. He was a great Painter ; but would have been a much greater, if to the Colouring, in which he excell'd, he had known how to join a correct Design. Some find fault with him for introducing none but allegorical Persons into his Pieces of History (z), where, amongst other Beauties, the Reflexions of Light are Admirable (a). *Vandeyck* was the Disciple of *Rubens* : He was particularly famous for Face-painting ; and his Pieces of *Belizarius*, the Scourging, and the Carrying of the Cross, are extremely fine.

The *Flemish School* has always kept up its Reputation since its first Establishment. It reckons among its good Painters, *Jordans*, *Vandeyck's* Condisciple, *Brill*, and *Fouquieres*, who in their Landskips express'd with the greatest Grace all the Beauties of the *Low Countries* ; *Vander Meule* and *John Paul*, who excell'd in painting of Sieges, Battels, and the Taking of

(x) In the Gallery of Luxembourg.

(a) That Part which is enlightened in the Shade by the reflected Light from the neighbouring Objects.

of Towns ; *Vatau*, who confin'd himself to little Subjects, but design'd finely, and group'd his Figures with a great deal of Art. At last comes the ingenious *Quellins*, who is at present the great Master and Glory of this School.

Dutch.

'Tis said of the *Dutch*, That they never had a good Painter : But it must be acknowledg'd, That many of their Painters have had a wonderful Talent at imitating what is call'd the *Clear-Obscure*, by placing justly the Lights and Shades in a small inclos'd Space. *Tenniers* did never any thing that was great ; he was incapable of it : But he represented the Country-Sports and Festivals very naturally. *Antony More* of *Utrecht* made Face-Pictures, and *Corneille Polambourg*, Landskips.

French.

The Taste for Painting began in *France* from the first time of the renewing of that Art. *Charles V.* had always about him the Famous *Jean de Bruge*.

Under the Reign of *Louis XI.* *Rene*, Duke of *Anjou*, King of the Two *Sicilies* and *Jerusalem*, was an excellent Painter, according to the Accounts of *Brantome*, *Rusi*, and *Bouche*. This Prince drew his own Picture, which is kept in a Chapel of the *Carmelites* of *Aix* in *Provence* (b).

Francis I. brought to his Court *Andreas del Sarte*, and some other good Painters, whom he bountifully rewarded : But neither the King's Liberality, nor the Lessons of those able Masters, were capable of making Painting to flourish in the Kingdom. The *French* knew not what it was to handle a Pencil, till the Reign of *Louis*

(a) Montfaucon, Monumens de la Monarchie Françoise, T. 3.

Louis XIII. *Simon Vouet*, his chief Painter, having study'd under *Valentin*, and done a great many good strong Pieces enough, display'd in his last Pieces all the Charms of Colouring, by a lively Opposition of Shades and Lights. This Opposition, nevertheless, was too plain and visible : For Beauties become Faults, when they are carried too far. *Jaques Blanchard*, without falling into this Excess, gave a Light and Freshness to his Colouring, which our Painters could not imitate.

M. Sucur was *Vouet's* Scholar : But he did not imitate his Master so clearly in managing the Pencil, as *Dovigni* did : He painted after Nature, and after the Idea and Conception of what is fine in Nature, and manag'd the Pencil after as many different Ways, as the different Subjects requir'd.

Poussin, about that same Time, endeavour'd to restore good Painting at *Rome*, by opposing his Strong Manner of expressing, to the Soft and Tender, which was then in Vogue. When he return'd home, he form'd the Taste of the *French*, as he had corrected that of the *Romans*. His Pieces of *Pyrrhus*, of *Rebecca*, of the striking of the Rock, of the Rapture of *St. Paul*, of the Landskip so much boasted of, which is call'd *Arcadia*, shew, that Painting may pass from the Simple to Great, and from Plain and Natural to the true Sublime.

The Attachment which *Poussin* had to the Antique, gave him an Air a little too austere and stiff in his Works. *Le Brun* borrow'd nothing from the ancient Sculpture, but what he found Noble and Majestick in it, without imitating that which it had of the Dry and Immoveable. He excell'd in disposing of his Subjects

jects with great Skill : His Ideas were great ; his
Airs which he gave to the Head, various. In
a Word, to compare him with the best Paint-
ers that went before him, he had as much Inven-
tion as *Raphael*, and more Vivacity than *Poussin*.
Pierre Mignard was exceeding graceful and
delicate in his Designs, and in the easy Atti-
tudes which he gave to his Figures.

Such Masters could hardly fail of making
good Scholars. The Merit of Mess. *Coyvel*,
La Fosse, *Honasse*, *Juvenet*, *Boulogne*, &c. is
very well known : Those Gentlemen apply'd
themselves only to great Historical Subjects.
Others confin'd themselves to Face-Painting ;
as *De Troy* and *Rigault* ; to Landskips, as
Patel ; to the painting of Flowers and Fruits,
as *Fontenay* ; to Perspective, as *Roussseau* ; to
Ornaments, as *Houart*, *Huliot*, and *Cotelle*.

Invention did not stop at painting with
Oil, or in *Fresco* : Many other Ways of paint-
ing were either invented, or brought to perfec-
tion at the same time ; as painting on Glafs, by
Enamelling in the *Mosaick* Way, by Inlay-
ing, &c.

Painting on Glafs is altogether modern. A
Painter at *Marseilles*, who wrought at *Rome*
under *Julius II.* made it known to the *Itali-
ans*, who succeeded in it very well. Amongst
others, *Lucas Peni*, who painted the Glafs of
the Chapel of the *Bois de Vincennes*. *Albert*
Durer in *Germany*, and *Luke* of *Leyden* made
afterwards a new Improvement in this Art,
which has since been carry'd to great Perfecti-
on, with regard both to the Beauty of the
Design, and Preparation of the Colours. This
Way of Painting is totally neglected now-a-
days. I don't know if there is good reason for
it. Let us examine it a little.

Painting

Painting by Enamel is done upon Metals, and on Earth. Enamelling on Earth was in use among the *Tuscans* in the Time of *Porfenna*; and after a long Series of Ages, it was renew'd in *Italy*, under the Pontificate of *Julius II.* At that time, they made at *Fyance*, and *Castel-Durant* in the Dutchy of *Urbino*, Vessels painted in the *Clear-Ob-scure* Way, of an excellent Design. They made in *France*, after the same Taste, Works of Metal, known by the Name of *The Enamel of Limoges.* *Pierre Chartier du Blois* was one of the best Enamellers.

In these Times, I mean under the Reigns of *Francis I.* *Charles IX.* and *Henry II.* they did not know the Clear Enamelling. *John Toutin* of *Chateaudun* practis'd the Dark Enamelling: *Dubie* brought the Secret to Perfection. *Reber Vauquart* of *Blois*, Disciple of *Mortier* of *Orleans*, made the finest Colours on his Enamelling, and design'd more correctly than his Predecessors. We had hitherto seen only Enamell'd Pictures in Miniature: But those which *Jaques Berdier* and *Jean Petitot* brought from *England*, excited the Curiosity of our Workmen to imitate them, which *Lewis du Garnier* succeeded in perfectly well.

In the 16th Age, some ancient *Mosaick Mosaick.* Works were discover'd in several Places in *Italy*; which made some good Painters engage in Works of that nature. The very first Essays they made, were much better than the Models they made them from: For the ancient *Mosaick* Pieces look'd but very indifferent, when compar'd with those which *Joseph Pire* and *Lanfranc* made in the Church of *St. Peter.*

About

Inlaying.

About the same time, they began to work on the Inlaying Way. Pieces of this Work are made, either by two or three different sorts of Marble; or with little Pieces of Wood of different Colours; which, by being artfully joyn'd together, represent divers Figures.

The first Way, by joyning the Marbles, is a Modern Invention; and there is nothing more perfect in that kind, than the Floor of the Cathedral-Church of *Siena*, which was begun by *Duccio*, and completed by *Dominico Beccafumi*. The second Manner, with Wood, was known to the Ancients, according to *Pliny* (c); but has been very much improv'd by the Moderns. It was begun at *Florence* by *Philippe Brunellesco*, and by *Benedetto da Majano*; and after them, it was brought to its utmost Perfection. If *Italy* boasts itself so much of *Jean de Verone*, *Raphael's* Cotemporary, what Praise don't *Jean Macè* and the Famous *Boule* deserve, who made such excellent Inlaid Works for *Lewis XIV*?

Damaskry

Damaskry takes its Name from the City of *Damascus* in *Syria*. 'Tis thus that certain *Arabick*, flat, or *Bas-Relief* Ornaments, which are made upon Iron with small Threads of Gold or Silver, are call'd. The Ancients were sometimes very fond of this Work. As to the Moderns, the *French*, since the Days of *Henry IV.* have surpass'd all other Nations in this sort of Work; and *Curfinet*, who dy'd at *Paris* about the Year 1660, made very fine Works of this nature (d).

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(c) Hist. Nat. lib. 16. cap. 43.

(d) Felibien des Avaux. Princ. des Arts, liv. 3. ch. 10, 11, 12, 14, 15.

E N G R A V I N G.

THE Art of Engraving Precious Stones On precious Stones. was in use in *Moses's* Time, as is plain from those precious Stones which were set in the Ephod and Breast-plate of the High-priest, on which were engraven the Names of the twelve Tribes of *Israel*. 'Tis probable, that the *Israelites* learned this Art from the *Egyptians*; and that the *Greeks* also had it from them, and the *Romans* from the *Greeks*. However that be, it is certain, that the *Romans* were very skilful Engravers, both in Crystal and in Stone; and that they engraved both in the Hollow and Relievo Manner. They made a great deal of Use of the *Onyx* Stones, and *Cornelian*; there are a great many of them yet to be seen, which are admired for the Beauty of the Design, and Excellency of the Work; such as, the *Apollo* of *Actium*, which is in the King's Cabinet; *Antony* and *Livia* in the Emperor's Cabinet; *Cicero* in the Cabinet of *Charles II.* King of *England*; *Mark Antony* and *Cleopatra*, of which Father *Montfaucon* gives us the Design in his *Diarium Italicum*; all these Works are of *Augustus's* Time, and shew, that the Art was then in its Perfection.

Engraving in the Hollow Way was indispensibly necessary: No publick Act could be authentick but by the Seal; for it was much more easy to counterfeit Writing upon Tablets of Wax, than to imitate a Seal exactly. Thus it appears very evident, that the Seals which the Ancients took care to have on all their

S

Acts,

Acts, made it both impossible to forge the Act, and contributed also to the Perfection of Engraving.

Medals.

Medals preserved for a long Time the Elegance of Design, which they lost afterwards in the Times of the last Emperors. There are no *Greek* Medals of tolerable Beauty to be seen since the Emperor *Severus's* Time. The *Latins* preserved the Purity of their Taste longer; but after *Gordian the Pious*, their Medals degenerated very sensibly, and under *Galienus* they were good for little or nothing.

This Art was renewed with others, in the Time of Pope *Martin* the Vth, about the Beginning of the XVth Century. One of its Restorers was a *Florentine* call'd *Jean del Cornevole*, because he wrought only in *Cornelian*; others afterwards engraved on all Sorts of Stones, and on Crystals, and represented great Subjects. We cannot, without Injustice, but distinguish from the Crowd of common Engravers, the famous *Dominico de Camæi* a *Milanese*, who engraved upon a Ruby the Picture of *Lewis Le More* Duke of *Milan*.

We must come to the last Age, if we would see Medals in all their Perfection. *Jean Varin* made those of *Lewis* the XIIIth, which are excellent, and for their Beauty may be compared with the finest Medals of Antiquity. All the Money which carries the Stamp of that Prince, and that which was made during the Minority of the late King, is by the same Hand, and most exquisitely wrought; for *Varin* had cut and engraved all the Instruments, and had the Conducting of them in giving the Stamp. After his Death, which happened in the Year 1672, *Claud Ballin* had the Direction of the Works for Medals, to the

the 28th of *January* 1678. What we have left of that able Artist, shews, that he was a Man of an admirable Genius, great Invention, and exquisite Discernment: The Works of Gold which he made for the King, shew this plainly.

Hollow Engraving ought naturally to have led the Ancients to the Engraving in *Taille Douce*. It is surprising, that after they had found the Secret of Engraving both on Marble and on Brass, their Laws and other Incriptions, they should have stopt there; and that they never thought of engraving upon Copper the finest Paintings.

This so useful a Discovery was reserv'd for the Time of the Renewing of the Arts. Formerly they made fine Miniatures, which ornamented Books at a great Expence; there are to be seen some of these very fine, which were made in the Time of *Lewis* the XIIth. This Custom lasted during the Reign of *Francis* the Ist; but after that, the Engravers took that Employment out of the Painters Hands; and at first they engraved on Wood. In Wood: A Goldsmith at *Florence* made the first Essay of these wooden Engravings for Books, and others followed him. *Albert Durer* and *Lucas* were of the Number. *Hugo de Carpi* made Stamps, which appear'd to be of the *clear-obscure Manner*; he made use of three Plates, of which one was for the Light, the other for the half Light, and the third for the *Contours* or Circumferences, and the Shades.

This Sort of Engraving decayed gradually *Taille* after the Manner of Engraving on Cop- *Douce*. per was found, which was infinitely more easy than the first; and gave to the Stamps a certain Sweetness and Agreeableness. Almost a-

Aqua fortis.

about the same Time they invented the Engraving with *Aqua fortis*, which is so convenient for great Acts or Decrees, and for Pieces which are intended to exhibit great Art and *Design*.

The Bounds which I have prescribed to myself, don't allow me to recount all the Engravers, and fine Pieces of Engraving; this Knowledge only concerns a few *Connoisseurs* of one Kind; but to show to what Degree of Beauty this Art is arrived at, I need but refer you to the Stamps of *Van-Schupen*, *Edelink*, *Vermeylen*, *Simoncau*, *Nantuil*, *Poilly*, *Masson*, *Pino*, *Mademoiselle Stella*, *Gerard Audran*, *Le Clerc*, *Picart*, and many others, who flourish'd under the Reign of *Lewis XIV.*

The Pieces of these great Masters express the Quality which characterise them. As for Example, every body knows, that *Nantuil* excell'd for the Description; that *Melan*, not content with the common Practice of all Engravers, invented the simple Cut; and has imitated every thing by one only Draught, which proceeding always by Turning, is more or less fine, according to the different Objects which he is to represent; *Chaveau* had a most fertile Imagination for finding out Subjects, and for embellishing them; and an ingenious Turn for ranging all his Figures.

Callot was older than any of these Engravers, and was better known; he had two Properties, the first, to comprize in a small Space a great number of things; the second is, with two or three Strokes of the Graving Tool to describe the Action, Manner, and particular Character of every Figure (*e*).

These great Masters have left a worthy Posterity. The general Taste of the Nation has
ennobled

(*e*) Perrault's *hommes illustres*.

ennobled this Art. Prejudices are vanish'd and lost, Indolence and Idleness does not now always accompany great Birth; for the *French* Nobility begin to handle the Graver (*f*). Such an Example will certainly raise a great Emulation amongst our common Artificers; for it was from this Motive that Painting was both improv'd, and its Masters multiply'd; which gives us also grounds to hope, that some rare Pieces or Curiosities, which now lie hid in Chests, may, sometime or other be published, and seen in many Places.

P R I N T I N G.

SUCH is the Nature of Engraving, that Printing, by which the Sciences are so much advanced, may be said to have been invented long before it was commonly said to have been, and the true Use of it known. I chuse rather to be silent about the first Inventor, than to run the Hazard of a false or frivolous Conjecture (*g*). It is pretended, that the *Chinese* had made this Discovery long before the *Europeans*. This Opinion is not certain; and, besides, since the Time it was made known to us, we have brought the Art to that Perfection, that the Merit of the Invention cannot justly be refus'd us.

The Progress of Printing has not been slow; for the Discovery was only made in the 15th Century,

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tury,

(*f*) M. le Marquis de Cailus engraves himself. M. de St. Maurice, an Officer of the King's Guards, engraves also.

(*g*) Polyd. Virgil de Invent. Rer. lib. 2. Cap 7.

Famous
Printers.

tury, and the next Century saw it in all its Beauty ; since that Time, most polite Nations have cultivated it with Success. There were several of the old Printers learned Men, well vers'd in the Languages and Belles Lettres, who for sixscore Years gave very exact Editions : As, at *Paris*, the two *Stephanus's*, *Vascosan*, and *Morel* ; at *Lyons*, the *Gryphii* ; at *Bale*, *Operinus* and *Frobenius* ; at *Venice*, the *Aldi Manucii* ; at *Antwerp*, *Plantin*. At present, the Royal Printing-house at *Paris* maintains this Art in a Degree of Perfection, from which it begins to decline, almost every where else. Sordid Gain makes a Multiplicity of Editions, oft-times prefer'd to the Beauty and Exactness of Impression.

Know-
ledge of
Books.

From Printing, it is natural to proceed to the Knowledge of Books and Authors ; for Printing, by multiplying Books infinitely, has made the Choice of 'em very difficult : This mov'd several learned Men to offer their Assistance, as Guides and Directors to others ; and they call'd the Books they wrote for this Purpose, *Bibliothèques*. *Raphael de Volterre*, as some think, is the first who pretended to be a Guide in this Way, by his *Anthropology*, which is a Part of his Commentaries, print- at *Paris* 1515 ; but it is a poor starv'd Work, and can recommend its Author for nothing else but his good Intention. This Design was much better executed afterwards by *Conradus Gesnerus*. His universal Library contains a short Account of the Lives of the Writers ; the Titles of their Works ; the Opinion the Learned have of them ; and some Passages, as Samples of their Style. It was upon this Plan that *Conrad Lycosthenes*, *Robert Constantine*, *Josias Simlerus*, and *Joannes Frisius* wrote af-

afterwards. The Attempts of the first two were not successful. The Epitomes of *Irisius* and *Simlerus* were more favourably receiv'd. After these Authors, *Antony Verdier* and *la Croix du Maine* made a pretty good Supplement to the *Bibliothèque* of *Gesnerus*. *John Hallerwood* is not so exact. As for *Ciacconius*, he he might possibly be prefer'd to the most part of those who were before, or have come after him, was it not for the Erudition he shows without good Criticism. What can be said of an Author, that makes *St. Jerome* a Cardinal; and who attempts to prove that the Soul of *Trajan* was brought out of Hell by the Prayers of *St. Gregory* (b)?

I chuse to omit several other Library Writers. The Catalogues of the Books of the President *Thouanus*, and of *M. Le Tellier* Archbishop of *Rheims*, would be very useful, if they were any thing else but simple Catalogues. There begins to appear a Catalogue, done by a good Hand, which will make all others neglected, and save the Trouble of a great many Enquiries (i).

(b) Pref. of *M. Camuzat* on the Biblioth. of *Alf. Ciacconius*.

(i) Catalogue of the King of *France's* Library.

AUTHORS of the HISTORY of LEARNING.

Order of
Reading.

HAVING taken a cursory View of the Origin, Progress, Decline and Re-establishment of every one of the Arts and Sciences in particular, it remains now to take Notice of the most remarkably approved Authors of the History of Learning; that the Youth, who have not enter'd on this Sort of Study, may know who to have Recourse to, and also observe some Order in their Reading.

Gramma-
rians.

If you are resolv'd to take this History in Detail, after you have read what *Suetonius* and *M. Baillet* have written concerning the Grammarians, you may peruse the Little we have of the Lives of those who have distinguished themselves by the Study of the *Belles Lettres*. *M. de Peirese*, one of the most illustrious for this Kind of Learning, deserves a *Gassendi* for his Historian. *N. Chorien*, desirous of doing Honour to *Dauphiny*, his Native Country, has written the Life of *Pierre de Boissat*, a Member of the *French Academy* (k).

For the History of Poesy, one ought to read the Lives of the *Greek* and *Latin* Poets, by *Vossius*; *Giraldi*, of the Poets of his own Time; the Judgment of the Learned concerning the Poets, by *Baillet*. The Lives which are prefix'd to the best Editions, and to the *French* Translations of every Poet, inform

(k) Printed at Grenoble, 1680.

form us of many things which are not to be found in *Vossius*, whether these Lives are given us by the Ancients, or come from a Modern Hand. We have the Life of *Tasso* by *Abbé Decharnes*; and that of *Malherbe* by *Racan* his Disciple.

Cicero, in the Book call'd *Brutus*, and *Orators*. *Quintilian* in the first chap. of the 10th Book of his Institutions, give Account of the ancient Orators, and their different Characters. *M. Gibert* treats of the ancient Rhetoricians.

Jean Henri Boecler, and *Gerardus Vossius* Historians. give Account of all the *Greek* and *Latin* Historians. *Martin Zeiller* joins the Chronologists and Chorographers to the Historians; and *M. Baillet* tells what we ought to think of Historical Criticks. Mr. *Dupin* undertook a great historical Work; but he carried his *Bibliothèque Universelle* no farther than to *Diodorus Siculus*: After these one may read at his Leisure the Lives of some particular Historians, as of Father *Paul*, for Example; of *Peter de Puy*, by *Nicolas Rigault*: But I dare not advise the Reading of that unfaithful History of *Eudes de Mezeray*, publish'd in *Holland*. A Writer like *Mezeray*, who was so great a Lover of Truth, deserv'd a more impartial Historian.

After the History of Philosophy by *Georgius Philosophers*. *Hornius*, the Lives of the Philosophers by *Diogenes Laertius* and *Eunapius* may be read; as also the Abridgment, which goes under the Name of the Archbishop of *Cambray*. If you desire to extend your Reading a little farther, with regard to the Philosophers, you may read the Lives of the two Chiefs of Philosophy, *Pythagoras* and *Socrates*. The Life of

of *Pythagoras* is written in *Greek* by *Porphyry*, and in *French*, by *M. Dacier*: The first is accompanied with the Observations of *Lucas Holstenius*, and with a Dissertation of that same able Critick on the Life and Writings of *Porphyry*.

Socrates has also two Historians, the one an Ancient, the other a Modern, *Xenophon* and *Charpentier*. *Gassendi* has written the Lives of *Epicurus* and *Tycho-Brabe*, and *M. Baillet* has written the Life of *Descartes*. *M. de Launoy* has written the History of the different Treatments *Aristotle* met with in the University of *Paris*, and of the Opinions about his Doctrine. *Melchior Adam* writes only of the *German* Philosophers, and *M. Menage* of the Women who dabb'd in Philosophy. *Mess. Le Clerc* and *Friend* have written the History of Medicine, and *Olaus Borrichius* that of *Chymie*, the Antiquity of which he maintains against *Conringius*. *Melchior Adam* has also written the Lives of the Physicians and Theologues of his own Country.

Ecclesiastick Authors.

Antony Possevin a Jesuit, in his sacred *Apparatus*, gives us the Names and the History of all the Ecclesiastical Authors, with a Catalogue of their Works. *M. du Pin*, who liv'd in a more learned Age, gives us, in his *Bibliothèque*, the History of those Writers in a more exact Order; but, as it is not easy to keep free of Mistakes in a Work of that Length, the Remarks of *P. Petit Didier* ought to be read along with him. It is upon much the same Plan *R. P. Ceillier*, a *Benedictin* of the Congregation of *St. Vanne*, has undertaken the general History of the Sacred and Ecclesiastick Authors, of which he has only published as yet the first three Volumes, which

con-

contain the History of the Writers of the first three Centuries.

Stampelius and *M. de Launoy* have success- Famous
fully written two Histories of the famous Schools.
Schools of *Europe*. The sound and just Criticism of *de Launoy* will make every judicious Reader prefer him to his Competitor. This *French* Doctor has also written a particular History of the Royal College of *Navarre*; in which he gives the Lives, and a Catalogue of 134 Authors of this Society.

We have the Lives of some Theologues Divines.
published by themselves; as, the Life of Cardinal *Bellarmino*, by the Fathers *Fulgalli* and *Frison*, Jesuites; and of *M. Arnaud* Doctor of the *Sorbonne*, of *P. Mabillon*, of *M. Nicole*, and of some others: But if you read the Life of Father *Morin* of the Oratory, you'll do well to be on your Guard against the peevish Humour and bitter Style of *M. Simon*, who is thought to be the Author of it.

The *Ecclesiastick* Law, the *Roman* Law, Law.
and the *French* Law have their particular Historians, who are well enough known.

Vossius has written the History of the Ma- Arts.
thematicians; *Boxhornius* and *Mallinskrett* that of the Printers; Mess. *Felibien* and *Despiles*, *Vasari* and *Carlo Dati*, have written the Lives of the Painters, Sculptors and Architects: but *Vasari*, too much prejudiced in Favour of his Country, extols the *Italians* oft-times at the Expence of Truth. *Felibien* makes *Poussin* his Hero. *Despiles* is so much taken with the Merit of *Rubens*, that he exceeds in his Complaisance to him. He chose to write his Life preferably to all other Strangers; a Distinction and Compliment which *Pierre Mig-*
nard

nard had paid him some Years since among our French Painters.

The History of these fine Arts, which has been written so often, is not at all quite exhausted. *M. le Abbé Pascoli* of *Perouse*, has undertaken it of late; and the first Volume, which is already published, gives Reason to believe it will be an excellent Work when finished. The same may be said of *M. Le Roy*; the best Judges are pleased with what he has done already, and are pre-disposed in favour of his History of the Goldsmith's Art, which the Republick of Letters expects impatiently.

History of
Learning
in general.

Hitherto we have spoken of those Authors only, who have confin'd themselves to one Art: Others have written of the Authors in all the Sciences, but after different Methods. Sometimes the Authors are ranged by their Nations; sometimes they appear in a Chronological Order. Sometimes it is the History of learned Societies; sometimes it comprehends many Ages; sometimes a certain number of Years only. Some write simple Memoirs; others make Eloges. This Variety is agreeable and useful too. Good Actors, who appear on a Stage under different Masks and Dresses, are always sure to please and instruct. Take a few Examples of the different Methods, without minding an exact Order, but as they offer themselves to our Memory.

Ant. Sanderus compos'd the History of the most famous Writers of *Bruges*, of *Ghent*, and of all *Flanders*. *Valerius Andreas*, in his *Bibliothèque* of the Low Countries, gives the History of the Learning of these Provinces. *Scévola de St. Martine* and *Charles Perrault* compos'd the Eloge of the illustrious Men who have

have flourish'd in *France*. The *Benedictins* have begun to give the Literary History of the *Gauls*. *P. de Colonia*, a Jesuit, has written the History of the Learned in the *Lyonnois*. The great Works which are in the Press will eternize the Memory of the learned Men of *Languedoc* and *Provence*. The learned *Spaniards* are recorded in the *Spanish Bibliotheque* of *Nicolas Antonias*. *Leon Allatius*, in his *Apes Urbanæ*, gives a Catalogue of the Authors who flourish'd at *Rome* from the Year 1600 to 1632, and of the Works which they published.

Polydore Virgil treats of the Origin of Arts and their Inventors. *Vincent Placcius* gives an Account of the anonymous Authors, and discovers the Plagiaries. *Adrian Baillet* produces the disguised Authors, and Children who were famous for their Studies. *M. Huet*, the ancient Bishop of *Auranches*, writes the History of the Translators. *Simon Paulus* writes a Literary History. *Cave* confines himself to the Lives of the Ecclesiastical Writers. *Pere Niceron* the *Barnabite*, has given us already 34 Volumes of Memoirs, curious and useful, of the History of Men that were illustrious in the Republick of Letters. The Learned of all Countries have *Paulus Jovius*, *Thuanus* and some others, not forgetting *Lorenzo Crasso*, nor *Girolame Gbillini*, for their Panegyrist.

The Writers of any Note who have appeared among the religious Orders, are recorded by their own Historians. *Charles de Viscb* has collected a Catalogue of the Writers of the Order of *Citeaux*. *Theodore Petreius* has made one of the *Carthusians*, *Peter Lucius* of the *Carmelites*; *John Rivius* and *Philip Elsius* have spoken of the Writers of the Or-

Order of the Hermits of *St. Augustine*: *Leander Albertus* has given us an Account of the illustrious Men among the *Dominicans*: But his Book is little esteemed, since the Fathers *Echard* and *Questis* have published their History of the Writers of this Order, in two Volumes *Folio*. Lastly, the Fathers *Ribadeneira*, *Alegambia* and *Sotuel*, *Jesuits*, have successfully collected with great Care and Diligence all the great Actions and Writers of their Society.

Some have endeavoured in one History and Criticism, to comprehend all the Writers who have bore the same Name. However odd this Design may appear, it has been attempted by *Leo Allatius* in his History of the *Georges* and *Simeons*, in two separate Dissertations, where there are several Things very curious. This Man, who was Keeper of the *Vatican Library*, has made some other Collections of this Kind out of *Methodius*, *Nicetas*, *Philous*, *Pfellus*, &c. *M. Launoi* has also written a Dissertation upon the *Victorins*.

The History of Academies.

The History of the different Academies, which have been established within these hundred Years, makes up a particular Branch of Learning, and shews us how the Arts have by that Means been advanced.

M. Pellison has given us the History of the *French Academy*, from its Foundation to the Year 1652. It has since been continued by the Abbot *Olivet*, a Man truly worthy to share the Praises of that illustrious Writer.

M. de Boze has written the History of the Academy of Inscriptions and Belles Lettres. In it we meet with more than a simple Narration

ration of Facts ; he has display'd the Erudition of the Academicians in all its Splendor, and has either transcribed or extracted many Pieces of fine Learning.

The History of the Academy of Sciences was begun by Mr. *Du Hamel*, and continued by M. *Fontenelle*. In it we see and reap the Profit of the Labours of that learned Body: Here also we may see the fine Discoveries which they have been making for almost an Age backward, and learn many useful Lessons both in Physic and Mathematics.

After perusing these, we may read the Acts of *Leipsick*, the History of the Royal Society of *London* by Bishop *Sprat*, the Philosophical Transactions, the Journal of the Learned, News from the Republick of Letters, the Memoirs for a History of Sciences and fine Arts, commonly call'd the Journals of *Trevoux*.

Thus we see that this is a Study of a very large Extent ; and he that will sit down to read all that has been written on these Subjects, will be in Danger of neglecting others of greater Importance. Let every one make his own Choice according to his Taste or Situation.

AGRICULTURE and GARDENING.

MA N, before the Fall, was happy in the peaceful Enjoyment of all the Fruits of the Earth, which were provided for his Use alone(*a*): after that, he found all Nature changed with regard to himself, and was obliged to conquer the Inclemency of the Seasons, the Barrenness of the Earth, and the Untowardness of the Beasts (*b*). But tho' what was at first intended for his Happiness became his Punishment, God in condemning him to severe and hard Labour left him some Remains of Knowledge, in the Midst of that profound Ignorance which was the Punishment of his Crime. By means of this Knowledge, and the repeated Experiments he made, he learned by Degrees to distinguish Times and Seasons for Sowing and Reaping, and to give the necessary Culture to the Earth, and to tame the wild Beasts.

Adam instructed his Children in this Art by his Example as well as by Precepts. *Cain* apply'd himself to Husbandry; *Abel* led the Life of a Shepherd, and contented himself with feeding his (*c*) Flocks.

Before the
Flood.

The first Colonies that were settled before the Deluge, and they that came after it, carried the Art of Husbandry along with them where-ever they went: nevertheless this Art (which like all others was very simple at first) was long before it arrived to any Degree of Perfection. *Tubal Cain* was the first who wrought

(*a*) *Gen.* chap. 2. v. 8. and 15.

(*b*) *Gen.* chap. 3. v. 17. and 18.

(*c*) *Gen.* chap. 4. v. 2.

wrought in Iron (*q*): after that, it was easy to apply the Invention of this new Trade to Agriculture. *Noah* (*r*) first planted Vines, and his Children continued to do so in all the Countries where they settled.

After the Flood.

Abraham and the rest of the Patriarchs, who looked upon themselves as Travellers and Strangers on the Earth, had no fixed Residence; and therefore apply'd themselves to a pastoral Life; thus ennobling a Profession, which being practised only by the meaner sort in those latter Days, has for many Ages lost its original Dignity. But after their Descendants were fixed in *Palestine*, they all became Husbandmen, and from the Chief of the Tribe of *Juda*, until the last Branch of the Family of *Benjamin*, they were all Husbandmen. Birth at that Time made no Distinction, and Agriculture was an honourable Employment.

The Israelites.

Gideon was threshing of his Corn himself, when the Angel told him that he should be the Deliverer of his People (*s*). *Saul* was driving a couple of Oxen, tho' he was King, when he received the News of the Danger the Town of *Jabez* was in (*t*). The *Israelites* did not neglect their pastoral Art when they followed Husbandry; for *David* was keeping of his Sheep when *Samuel* sent in quest of him in Order to anoint him King (*u*). Besides, the *Levites* had no other Estate but their Flocks. As they were in a particular Manner set apart for the Worship of God, they were obliged to lay aside temporal Concerns; and therefore they were not comprehended in the Division of the Lands among the other Tribes.

T

Moreover

(*q*) *Gen.* chap. 4. v. 22.

(*r*) *Ibid.* v. 22.

(*s*) *Jud.* chap. 6. v. 11.

(*t*) *Kings B.* 1. c. 14.

(*u*) *Ibid.* c. 16. v. 11.

Moreover, the pastoral Life was always esteemed among the *Israelites* the most Innocent and most Perfect. For in the most corrupt Ages, the *Rechabites* abandoned their Possessions, and lived in Tents, solely employ'd about the feeding of their Cattle, and followed this Course of Life for the Space of 180 Years, even until the *Babylonish* Captivity.

The *Jews*, after their Return, retained the same Taste they had always for a Country Life; and notwithstanding those Revolutions, which successively brought them under Subjection to different Masters, they were Shepherds and Husbandmen. Under the *Maccabees*, every one, says the Scripture (*x*), labour'd his own Land; and during the Time that they were under the *Romans*, we see in the Gospel the most part of the Parables taken from a rural Life, a Sower (*y*), a Vine (*z*), the good Tree (*a*), the good Shepherd (*b*).

Gardening was not unknown to the *Hebrews*; but the Simplicity of their Manners was the Reason that they had nothing magnificent or luxurious in their Gardens.

Solomon made Enclosures, in which he planted all sorts of Fruit-Trees (*c*) and aromatic Herbs (*d*); and he tells us himself, that he had caused to be made several Reservoirs of Water. But it is plain, that such great Pieces of Water could not be had in a Country so dry as *Palestine*, without cutting Canals in the Rock, opening the Mountains, and raising Aqueducts: He adds,

(*x*) Mac. chap. 45.

(*y*) Luke chap. 8. v. 4.

(*z*) Mat. chap. 20. v. 1.

(*a*) Mat. chap. 7. v. 17.

(*b*) John chap. 10. v. 11.

(*c*) Eccles. chap. 2. v. 5. and 6.

adds, that he was less sollicitous about embellishing his Gardens, than about watering his young Plants. Among the *Israelites* and other *Eastern Nations*, there was neither Water-Works, nor other Contrivance of Art, which by forcing Nature is only intended to render the favourite Place more delightful.

The *Chaldeans*, far from imitating this Moderation of the *Israelites*, carried Gardening to the utmost Refinement. They were naturally vain; an Empire of so vast an Extent gratified their Pride and Luxury, so that they were not easily kept within Bounds; for not content with what was really good, they aimed always at the Marvellous and Extravagant, and the Manners of the People were seen and display'd in all their Works.

Nothing is more surprising than the hanging Gardens of *Babylon*. *Amytis* the Wife of *Nebuchadnezzar* loved the Hills and Forests of *Media*; but could find none like them in the smooth and level Country of *Babylon*. In order to please her Taste, *Nebuchadnezzar* ordered Gardens to be raised in the Palace as high as those Mountains, which formed an exact Square of 600 Feet in Circumference. Those he divided into several large Terrasses, rising in Form of an Amphitheatre two hundred Cubits high. The Ascent from one Terrass to the other, was by a Stair ten Feet broad. This stupendous Edifice was supported by several large Vaults one above another, and was surrounded by a Wall of two and twenty Feet in Breadth. Part of the River *Euphrates* was raised by Means of a large Pump to the highest Terrass, in Order to water the Gardens (o).

T 2

The

(o) See Prideaux's Hist. of the Jews, vol. 1. and Rollin's Ancient Hist. B. 8 chap 1.

The *Chaldeans*, who inhabited the Country where Agriculture took its first rise, brought that profitable Art to Perfection. *Herodotus*, who liv'd in the most distant Times of Antiquity, tells us (*p*), that the *Babylonish* Soil yielded a Return of two or three hundred Grains.

Persians.

The *Persian* Kings were also very careful to cultivate the Art of Husbandry: For that reason, they frequently either took a Tour thro' all the Provinces themselves, or sent Inspectors in their stead. The Nobility follow'd the Example of their Sovereign: For he always bestow'd his Favours on those, whose Provinces were best cultivated (*q*).

The *Persians* had a better Taste of Gardening than the *Chaldeans*. *Cyrus's* Garden at (*r*) *Sardis* is celebrated in History. *Lyfander* admir'd the Fineness of the Walks, the Disposition of the Trees, and the Regularity of the (*s*) *Quincunx* which they form'd: But when he heard that *Cyrus* had drawn all the Figures, and planted the greatest Part of the Trees with his own Hand, he cry'd out (*t*), *How justly art thou, O Cyrus, esteemed the happiest Prince in the World; for thy Virtue is equal to thy Fortune!*

Lydians.

Nature and Art strove to out-do each other, in adorning the Gardens of *Tissaphernes*, Governor of *Lydia* and *Ionia*, under *Darius*

(*p*) See the First Book of his History.

(*q*) See Xenophon's Oeconom.

(*r*) A City of Lydia near Mount Tmolus,

(*s*) *Quincunx* is when Trees are planted V thus, or X thus; and is a Method much commended by Virgil in his Georgics, and by Quintilian.

(*t*) See Xenophon's Oecon. and Cicero de Senect. cap. 17.

Darius Nothus. One of these Gardens surpass'd all the others in Beauty, by the Abundance of Water, the Coolness of its Groves, and the Beauty of its Grotto's and Arbours. This *Tissaphernes* is call'd *Alcibiades*. Nothing, in my Opinion, is a stronger Proof of the Merit of this illustrious *Athenian*, than the Taste he shew'd in laying out these magnificent Gardens.

The *Egyptians* attributed the Invention of *Egyptians*. Agriculture to their *Osiris* (u). It is certain, that this People are descended from *Ham* the Son of *Noah*, by *Mizraim*; and it is therefore probable, that *Ham* is *Osiris*: For we all know, that in those early Times it was usual to deify the Inventors of Arts.

The *Egyptians* push'd their Superstition so far, as even to adore those Animals which labour'd the Ground: An evident Proof of their Blindness, and of the Regard they had for Agriculture.

The great Riches of this Country consisted chiefly in Corn. *Rome* and *Constantinople*, the two greatest Cities in the World, could not have subsisted, if they had not receiv'd frequent Supplies from *Egypt*.

The *Phœnicians*, who are so well known *Phœnicians* in the Sacred Scriptures by the Name of *ans*. *Philistines*, were also famous for their Skill in Agriculture; insomuch that the *Israelites* were forced to go to sharpen their labouring Utensils among 'em. But (x) finding themselves too much confin'd in that Country, by reason of the Conquests of the *Israelites*, they spread through the greatest Part of the

T 3

Islands

(u) Diodorus, B. 1. Sec. 1.

(x) 1 King, c. 13. v. 14.

AGRICULTURE, GARDENING.

Islands of the *Mediterranean*, and carried the Knowledge of Husbandry along with them. Vines were planted and succeeded to Admiration in the Islands of the *Archipelago*, but chiefly in *Chios*, *Tenedos* and *Mytelene*, where their Wine was excellent.

The most famous Colony of the *Phœnicians* was *Carthage*, a State settled by Queen *Dido* 888 Years before Christ, and (u) one hundred and thirty five before the Foundation of *Rome*. It is not certain, however, whether that Princess really founded the City of *Carthage*, or if she only augmented and fortified it.

The *Carthaginians* followed the Taste of their Ancestors, and fell to study Agriculture in good Earnest. Their great General *Mago* wrote no less than twenty-eight Books on that Subject, which, according to *Collumella* (x), were translated into *Latin* by an express Decree of the Senate. If we may believe *Servius*, *Virgil* made use of these Books as a Model when he wrote his *Georgics*.

The Sici-
lians.

The Ancients (y) tell us, that the Goddess *Ceres* was born in *Sicily*, where she invented the Use of Corn and the Tillage of the Land. The Meaning of this Fable is not at all ambiguous; that Island was fruitful of Corn, and Agriculture was esteemed so honourable an Employment, that even their Kings did not disdain the Practice thereof. *Gelon* (z) the Tyrant of *Syracuse*, thought fit to encourage the Husbandmen by his own Presence, and *Hiero* his Successor follow'd his Example.

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(u) See Bouffet's *Universal Hist.* Part 1.

(x) Book 1.

(y) Cic. Verr. de Signis.

(z) He lived about four hundred and eighty four Years before Christ.

The fine Pastures and large Vineyards of *Sicily* are celebrated by many ancient Historians; particularly, the Cellars of *Gellius* the *Argentine*, which were hewn out of a Rock, and furnished with three hundred Tuns of Wine, each of which contained one hundred Amphoras, or ten Hogsheads of the Measure of *Paris*.

After this we need not be surprized at the Riches and Magnificence of those *Sicilian* Husbandmen, who were serv'd in Gold and Silver Plate engraved; and had their Houses adorned with Statues of very great Value (a).

Time, which at first gave Birth to Arts, ^{The} made them also to be forgotten, when they ^{Greeks.} removed from the Place of their Origin. The Children of *Noah*, who settled in *Europe*, undoubtedly carried along with them the Knowledge of Agriculture; but their Descendants, who took Possession of *Greece*, were such a savage Race, that they fed upon Herbs after the Manner of Beasts (b). *Pelasgus* (c) taught them the Culture of the Acorn, for which Divine Honours were paid him.

The *Athenians*, who were the first that received any Tincture of Politeness, taught the Use of Corn to the rest of *Greece*; they also shewed them how to give (d) the necessary Culture to the Land, in order to prepare it for the Seed. The *Greeks* soon found that the Use of Bread was more wholesome and more delicate than Acorns, and thank'd the Gods for such an useful Present. *Ceres*, in particu-

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lar,

(a) See Cic. Verr. de Signis.

(b) Pausanias, B. 1.

(c) See Justin, B. 2.

(d) Justin, B. 2.

lar, they held to be the Protectress of Corn ; and in order to shew their Gratitude to that Goddess, instituted those Ceremonies and Mysteries so famous throughout Pagan Antiquity (e). *Triptolemus* applied himself to the Culture of Corn ; and the great Quantity of Grain which that Prince exported to *Sicily*, and the Pains he took to teach the *Sicilians* the Art of Husbandry, made them believe he was inspired by the Goddess *Ceres*, to whom they thought they ow'd their Plenty.

Policy was afterwards joined to the Ties of Religion. The *Athenian* Kings thinking it more glorious to govern a small State wisely, than to aggrandize themselves by foreign Conquests, withdrew their Subjects from War, and employed them solely in cultivating the Earth. Thus constant Application brought Agriculture to Perfection ; and then it was reduced into an Art.

Hesiod, who is generally believed to have been cotemporary with *Homer*, was the first who wrote on this Subject. He calls his Poem (f) *Work and Days*, because Agriculture requires an exact Observation of Times and Seasons.

As the *Greeks* had made some Progress in Astronomy, it helped them to determine the different Seasons of the Year (g) : They reckoned the Spring from the Equinox, which happens when the Sun enters the first Degree of *Aries*, till the Rising of the *Pleiades* ; the Summer, from the Rising of the *Pleiades* to the Rising of *Arcturus* ; Autumn, from the Rising of *Arcturus* until the Setting of the *Pleiades* ;

(e) Cic. Verr. de Signis.

(f) Ἔργα καὶ ἡμέρας.

(g) Hippocrat. B. 3. de Diæta.

Pleiades ; and Winter, from the Setting of the *Pleiades* to the Vernal Equinox.

The Knowledge of Astronomy, which the *Greeks* had acquired, was afterwards the Occasion of their falling into very great Errors with regard to Husbandry ; for Man is seldom content to keep within the strict Bounds of Truth. As they regulated their Year by the Course of the Moon, and their Seasons by that of the Stars, they believed that the Stars had good or bad Influences on sublunary Bodies. Hence proceeded those frivolous Observations concerning the different Appearances of the Moon, and their superstitious Distinction of Days into lucky and unlucky. Thus Gardening was infected ; for the *Greeks* did not neglect the important Business of cultivating their Ground.

Pisistratus (i) and *Cimon* were as much distinguished at *Athens* by the Magnificence of their Gardens, as by their civil and military Virtues. They even gave an unprecedented Instance of Disinterestedness, and which has never been imitated since : They laid open their Orchards to all the Citizens, and suffered them to pull as much Fruit as they pleased.

The Praises which *Socrates* bestows upon Agriculture, shews us clearly the Sentiments of the *Athenians* (the most polite People that ever were in the World) concerning Gardening ; and that at a Time when their Republick was arrived at its greatest Lustre. *Agriculture* (says he) *is an Employment worthy of the most honourable Men, and most conformable to their Nature ; it is the Foster-father of all Ages and Conditions ; the Source of Health, Strength,*
Riches,

(i) Athenæus, B. 12.

AGRICULTURE, GARDENING.

Riches, and honest Pleasures : It is the Mistress of Temperance, Justice, Religion ; and in one Word, of all the Virtues.

Xenophon, in making *Socrates* speak so well of Husbandry, does nothing more than his Master, in an Art which undoubtedly is the most ancient and most profitable of any. This we learn from his *Oeconomia*, one of the best of his Pieces ; and which *Cicero* translated into *Latin* when he was a young Man : But what is most surprising, is, that even towards the End of the *Grecian* Empire, when the Corruption of their Manners was very great, we find the General *Philopæmen* labouring his own Lands at the Head of his Servants, whenever he was not obliged to be at the Head of his Army.

It is true (for why should I dissemble) that this was not the general Taste throughout *Greece*. The *Cretans* had their Lands laboured by Slaves, taken out of the Number of those Men whom *Minos* had subdued, and who paid them an annual Tribute. It is also true, that the *Lacedemonians* (faithful Imitators of the *Cretans*) made use of the *Ilotes* to cultivate their Lands. So remarkable an Opposition could proceed from nothing but the different Constitution of the Republics. *Sparta*, which breathed nothing but War, only aimed at getting Soldiers. The *Athenians*, whose Manners were more effeminate, and who were greater Lovers of Pleasure, aimed at nothing so much as Laboures, Artificers, and Vineyards.

The first *Grecian* Colonies, which spread themselves in that Part of *Italy* called *Great Greece*, taught the Inhabitants the Art of Husbandry ;

Husbandry ; and the last Colonies, which came from *Corinth* in the Reign (k) of *Numa*, brought the Art to Perfection.

Agriculture was esteemed an honourable The Ro-
Employment at *Rome*, in the earliest Times of mans.
the Republic. The most illustrious Senators applied to Labouring, and had neither Splendor nor Majesty, except in their publick Appearances. After *M. Curius* had triumphed over King *Pyrrhus* and the *Sabines* and *Samnites*, he chose to end his Days in the Country. *Quintus Cincinnatus* was following the Plough when he was chosen Dictator. *Regulus*, who was General of the *Roman* Armies during the first *Punic* War, demanded leave of the Senate to go and cultivate his Lands, which had been neglected in his Absence.

'Tis true, that when the *Romans* became tainted with the *Asiatick* Luxury, they gradually left off the noble Simplicity of their Ancestors, and employed their Slaves in the severer Labours of a Country Life. But tho' they did not drive the Plough themselves, even Men of Consular Dignity looked upon it as a Reward of their publick Services, when they obtained Leave to retire to the Country ; and were equally respected when they were supervising their Farms, as at the Head of the Legions, or in the Magistracy. *Cato* the Censor, that illustrious *Roman* General, Orator, Politician and Lawyer, after having govern'd Provinces, did not think it below him to write a large Treatise of Agriculture. This Work, (according to *Servius*) he dedicated to his own Son, and was the first *Latin* Treatise upon that Subject ; an evident Proof that he intended

(k) Bouffet's *Univ. Hist.* p. 1.

tended it more for Use than Ostentation. This Book is convey'd to us in all its Purity, in the same manner as *Cato* wrote it. An able Critic (*l*), who publish'd an Edition of it, cannot persuade himself that it is so: He thinks, that what is come to our hands under so great a Name, is only a dull Collection of ill-digested Fragments; among which, there are perhaps some written by no greater Man than the Abbreviator. *Varro's* Treatise upon the same Subject has less the Appearance of being supposititious: The Plan is very regular, and the Work embellish'd with all the *Greek* and *Latin* Erudition of the learned Author.

Cato has not forgot the Culture of the Vines: For in his time they were as common in *Italy*, as they were scarce under *Romulus* and *Numa* (*m*). Even the *Gauls*, who were establish'd along the Banks of the *Po*, cultivated the Fig-Tree and the Olive (*n*).

Virgil borrows the Language of the Muses, in order to embellish the Precepts which *Hesiod* and *Mago* left concerning Husbandry. But *Virgil's* Poesy is so beautiful, and his *Georgics* particularly are such a Master-piece, as must make every one despair of ever seeing any Performance like it. Tho' 'tis pity that he should have fully'd so perfect a Poem by so many childish Observations upon the good and bad Qualities of the Days of the Week, or of the Moon; and upon the Changes of the Air, which he boldly attributes to the Aspect of the Dog-Star, and the Rising and Setting of other Constellations. *Vitruvius*, *Virgil's* Cotemporary, and a great Architect, without

(*l*) John Matthias Gesner.

(*m*) Plin. Nat. Hist. B. 14. Sect. 14.

(*n*) Plut. in Camil.

without transgressing the Bounds of his Profession, gave Rules for the building of Stables, Wine-Presses, Cellars, Granaries, and Mills (a).

Thus Agriculture flourish'd under the Emperors. *Julius Grecinus*, the Father of *Agricola*, and who liv'd under *Caius*, wrote some Things upon this fine Art (b). A little while after, *Columella*, a Native of *Cadiz* in *Spain*, compos'd his Twelve Books, which shew something of the Purity of *Latin*, and make a Body of tolerable good Precepts concerning Country-Labour. The two illustrious Brothers *Quintilii*, who were Consuls (c) together, publish'd some Books of Husbandry, of which we have only a few Fragments left us. *Albinus* had written his *Georgics*, when he was declar'd *Cæsar* by *Septimius Severus*. The little we have left us of *Gargilius Martialis*, shews very well of what a fine Work the Injury of Time has robb'd us. This Remnant of his has for its Subject the Diseases of Oxen and Horses. He lived under *Alexander Severus*. *Vegetius*, who has left us Four Books upon the same Subject, flourish'd under the Emperor *Valentinian* the Second.

The Arts are not much improv'd, but when they are agreeable to the Taste of the Prince: And it is certain, that most of the Emperors lov'd and encourag'd Husbandry. *Adrian* was much delighted with *Antium* (e), and he retired to *Tivoli* the two last Years of his Reign (f). *Dioclesian*, after he had abdi-

(a) Vitruv. lib. 6. cap. 9.

(b) Lips. Not. in Tacit.

(c) A. C. 151.

(e) Philostr. Apol. vii. lib. 8. c. 8.

(f) Aurel. Vic.

abdicated the Government, passed the last nine Years of his Life at his Country-House near to *Saloni*: And when *Maximus Hercules* endeavour'd to persuade him to re-assume the Purple, "If you would observe (says he) these fine Pot-Herbs, which are the Fruit of my own Industry and assiduous Care, you would trouble me no more with the Thoughts of Empire (g)."

Let us now proceed to Gardening. Though it was very long before the *Romans* applied to that Art, *Lucullus* was, it seems, the first who brought Cherry-Trees into *Italy*, having carried them from *Cerasonte* (b), a City of *Pontus*: And we are still uncertain at what time the *Romans* procured Citrons, Apricocks, and Peaches. The *Greeks*, by their Expeditions into *Persia*, *Armenia*, and *Media* had learned the Culture of those Trees.

But, to return to the *Romans*: The Simplicity which we find in the Gardens of *Augustus*, shews us, that the Art was but lately introduced among them. *Virgil* (i) only describes it planted with Endive, Parsley, Roses, Cucumbers, Daffodils, Bears-foot, Ivy, and Myrrh. And in the Description of the Garden which he had at *Tarentum*, he only mentions Pot-Herbs; such as Cabbage, Vervein, or Holy Herb, Poppies, Bears-foot, or Brank-Ursine on account of the Bees, the Linden and Pine-Tree. This painful Gardener, says he, had planted Elms, Pear and Plum-Trees in a *Quincunx*, not neglecting the Plane-Tree, which yields so fine a Shade for Drinkers.

Horace

(g) See *Epiet. Eutrop. &c.*

(b) *Plutarch. in Lucul.*

(i) *Georg. 3. v. 12, 13, & infra.*

Horace (k) complains, that the Fondness the Romans had for Gardening, had made them neglect the Culture of their Lands. *The useless Plane*, says he, *is preferr'd to the Vine, and aromattick Herbs to the fruitful Olive.* This Taste increas'd apace; and the Gardens became more regular under *Domitian* and *Trajan*. *Pliny* the Younger gives us a long Description of his *Tuscan House*, where, he says, he had Parterres of Box, Beds of Bears-foot, a Walk in Form of a *Circus*, a Riding-House, or *Hippodrome*, and a Grass-Plot and Fountains.

From a Passage in *Macrobius* we may infer, that in latter Times the Romans improv'd very much in Gardening. *Virgil* knew only three sorts of Pears, viz. his *Crustumium*, or Pearl-Pear; his *Syrium*, or Bergamot; and *Voleumum*, or Bon Chrétien. *Macrobius* enumerates two and thirty kinds, and speaks of three and twenty kinds of Apples; which surely were not all known under the First Emperors.

After the Fall of the Western Empire, which was follow'd by that of the Ruin of all the Arts, that of Agriculture triumph'd (if I may so say) for some time, amidst the Ignorance of the Barbarians, who over-ran *Italy*. Towards the Reign of *Theodoric* (l), *Palladius* render'd himself famous: For the most ancient Author, who mentions that Writer, is *Cassiodorus*. He publish'd his Fourteen Books at *Naples*, the Style whereof, tho' plain, is not without Elegance. The Method of *Palladius* in handling this Subject

(k) B. 2. Ode 15.

(l) *Palladius*, *Rutilius*, *Taurus Æmilianus*.

ject is clear and regular. First, he lays down some general Precepts; after that, he descends to Particulars, and describes the proper Business for every Month in the Year.

Gauls.

Among the *Gauls*, the City of *Marseilles*, founded by the *Phocians*, was the Repository of Agriculture. It is probable, that this ancient Colony taught the *Gauls* the Art of cultivating Vines: At least it is certain, that there were some in the *Gaulish Narbonne* before the Conquest of it by *Julius Cæsar*. These Plantations, which had been prohibited by the Command of *Domitian*, spread farther under the Emperor *Probus*. After that, the Art of Husbandry suffer'd a fatal Blow by the Incursions of the *Franks*, and other barbarous Nations, who fought nothing but Pillage; and the Civil Wars, which follow'd the Death of *Clovis*, gave a mortal Wound to that Art. The Miseries of the Times soon chang'd the fruitful Fields into Forests, Meadows into Fens, Houses into Rubbish, and reduced the Country to that wasteful Condition, in which it was at the Beginning of the eighth Century. *Charles* the Great found a Cure for that Evil; and the Wisdom of that Prince had very happy Effects. But the Divisions which happen'd among his Children, the Ravages of the *Normans*, and the petty Wars which follow'd, confounded all things. At last, our Kings made the Sovereign Authority to be respected, and *France* began to change its Appearance, when the Religious Wars had almost thrown it into that Anarchy and Confusion, from which it had escap'd. It is therefore no wonder, that Agriculture made so small a Progress among us; that all that we have complete in our Language

guage on Country-Affairs, is confined to the miserable Productions of three (*m*) mean Writers, who have, without Distinction or Stile, collected all the Observations of the Farmers, and all their vulgar Errors.

But tho' the *French* neglected the Art of Husbandry, they were very painful of Gardening. The Crusades, which were made in the twelfth and thirteenth Centuries, gave occasion to our Kings to import (*n*) several kinds of Fruit, formerly unknown in these Western Parts: The famous Admiral *de Coligny* pruned and dressed his Trees with his own Hands, and was found in his Garden at that Imployment, by two Gentlemen, who were sent by *Catharine of Medicis* to see what he was doing. But still this Art was but little advanced; nor did it arrive at its full Perfection, till the seventeenth Century. That laborious and learned Writer, *M. Andilly*, loved to amuse himself with Gardening at his vacant Hours: He searched deep into the Nature of Trees, and joined Practice to Theory: He found out several Things which had escaped all that went before him on that Subject (*o*.)

About the same time, the celebrated *Quintinian* studied Gardening from such Authors as had treated of it: But he soon perceived, that the Ancients had made but small Progress in that Art. He travelled over all *Italy* as a Physician, and returned full fraught with many fine Observations. To prove the Truth of
U which,

(*m*) *The Theatre of Agriculture*, by *Oliver de Serres*; *the Country-House*, by *Charles Stiveu*; and another Piece, by *John Liebault*.

(*n*) Such as *Plums of Damas and St. Catharine*, and several kinds of *Raisins*.

(*o*) *Perrault's Lives of famous Men*.

which, he first began in M. *Fomboneau's* Garden. The late King was not insensible of the Merit of *Quintinian* ; and rewarded it, by making him Director-General of the Royal Palaces and Gardens. This industrious Man was no sooner put into his Office, but he made out the new Kitchen-Garden of *Versailles* ; and dividing that great Tract into thirty four *smaller* Gardens, gave to each of them the necessary Degree of Heat. *Quintinius* did more ; he left an excellent (p) Work for the Instruction of Posterity. In it he explains that kind of Pruning and Grafting which he himself invented. He also destroys the superstitious Observance of the Revolutions of the Moon ; and teaches us to prune the Fibres of Trees when they are transplanted. Gardening is a Field, where one may always find something to be gather'd. A Recluse has, by enlarging upon *Quintinius's* Plan, taught us how to water a Garden in form of Rain falling : An Art very necessary in times of Drought, when the Ground cannot be supply'd by watering with the Foot. He found the Method of transplanting Trees without the Earth or Clod about them, with all their Branches and Fibres, and to make them bear Fruit the same Year. We are now certain, by several Experiments, that when the Sun shines obliquely upon a Row of Fruit-Trees, they will grow much quicker, than if it shone directly upon 'em. Geometry has also been applied to Gardening,

(p) *Intituled, Instructions concerning Gardens, Fruit, and Pot-Herbs.*

ing, by means of which, Walls have been built sloping to the Horizon.

These are all fine Contrivances : But we must confess, that it was referr'd to M. *Nautré*, to know better than any Person, whatever contributes to the Beauty of Gardens. Nothing does him greater Honour, than the fine manner in which he has laid out the Garden of the *Tuilleries*, where he has corrected the Irregularity of the Ground, by an Elegant, but Plain Method. If by the Squares and Lanes which he drew there, he has shown himself a good Geometrician, he has discover'd himself to be a good Drawer, by the Justness and Elegance of the Walks, where-with he has adorn'd a great Number of Houses of Pleasure. But it is chiefly at *Versailles* that he has discover'd his great Talents. There we may at first sight distinguish the Groves (a) which he invented : They may all be known by that fine and delicate Character and Appearance he gave them ; and yet we see Nature throughout, in spite of all her Disguise.

The *Spaniards* have a compleat Treatise of *Agriculture*, which few of their Neighbours can boast of. It was undertaken by *John Ferrera*, at the Command of Cardinal *Ximenes*. That able Writer has collected, and put into his Work, all the important Lessons and Observations of the Ancients and Moderns on that fine Art ; together with several Observations which he himself had made during the Course of several Years, wherein he apply'd to that Study (b).

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(a) *The Labyrinth, Triumphant Arch, the Salle of Bal, &c.*

(b) See the History of Cardinal *Ximenes*, by M. *Marfolier*.

English.

The *English*, who are naturally quick of Invention, and fond of Experiments, have treated Agriculture in the same manner as they have handled the Art of Physick. As they are exact in their natural Researches, they have follow'd her closely, and have made curious Observations on her Proceedings: They have also been careful to practise with wonderful Sagacity, what they had drawn from a Learned Theory.

Husbandry has been esteem'd an honourable Employment in *China*, ever since the Foundation of that vast Empire. The *Chinese*, always constant in their Maxims, have never chang'd their Behaviour, with regard to Agriculture; nor have ever lessen'd the Esteem they had for it, even under the Domination of the *Tartars*.

The latest, and most faithful Historians inform us, that the Labourers are allow'd the first Rank in the Order of the People; and, in order to give his Subjects an high Idea of Husbandry, the Emperor goes annually on a certain Day, and draws some Furrows with a Plough; after which, he sows them with several sorts of Seeds (*b*).

(*b*) See *Father du Halde's Hist. of China*.

HUNTING,

HUNTING, FISHING.

MAN, having by his Sin forfeited the Empire which he held over the Beasts, was oblig'd to make use of all his Industry, in order to destroy such of them as were hurtful to him. This War against the wild Beasts was afterwards reduc'd to an Art. In the Fragment which *Eusebius* has preserv'd of *Sanchoiathan*, the *Phœnician* Historian, he fixes that Epoch at the Sixth Generation from *Adam*; and the Perfection of Hunting at the Seventh, when Iron was invented. We read in the Scripture (*a*) what kind of Arms was then employ'd against the Beasts. " Now " therefore (says *Isaac* to his Son *Esau*) take, " I pray thee, thy Weapons, thy Quiver and " thy Bow, and go out to the Field, and " take me Venison, such as I love." This Passage shews us, that this Exercise was then an useful Shift to furnish their Tables. After the Establishment of the *Israelites* in the Land of *Canaan*, they cultivated this Art, in order to preserve their Corn and Vines. Most of the figurative Expressions in the Sacred Writings are taken from Hunting. Nets and Traps are often spoken of in 'em: But Hunting with Dogs, &c. was not known among the *Hebrews*; for they did not so much hunt for Pleasure as Necessity.

According to *Sanchoiathan*, Fishing is a very ancient Art: For he attributes the In-

(a) Gen. c. 27. v. 3.

vention of it to the Sixth Generation, long before the Deluge. But, not to depend upon his Authority, the Scripture (*b*) tells us, that *Noah* and his Sons were allow'd to eat every Thing that had Life. On the other hand, a (*c*) celebrated Author seems to have fallen into an Error on the opposite Side, by confining Fishing too much to the *Israelites*; for their Neighbours, the *Idumeans*, were also careful to improve that Art. In the Days of *Job*, who was contemporary with the Patriarch *Joseph*. Whale-Fishing was very common at certain Seasons; nor were the People ignorant of the Use to which it might be apply'd. It is not therefore probable, that the Tribe of *Zebulon*, who liv'd by the Sea-Coast, and whose Situation invited them to Fishing, would for so long time neglect so profitable an Exercise.

Chaldeans. The Scripture (*d*) tells us, that *Nimrod*, the great Grand-son of *Noah*, who was the first King of *Babylon*, was a violent Hunter. That Prince had a political Reason for encouraging of Hunting; and his Design succeeded wonderfully. By this means he gain'd the Love of his Subjects, whom he deliver'd from the Attacks of wild Beasts: And in the Countries where he hunted, he found many well-disciplin'd Soldiers, who enabl'd him to enlarge the Bounds of his Kingdom. The Example of *Nimrod* was follow'd by his Successors; and the Drawings in the Palace of *Babylon* represented the Huntings of *Ninus* and *Semiramis*, against the Lions and Leopards.
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(*b*) Gen. c. 9. v. 3.

(*c*) M. Fleury's *Manners of the Israelites*.

(*d*) Gen. 10. v. 9.

It is commonly thought, that the Manners of Princes are always copy'd by their Subjects. Thus it was with the *Chaldeans*; they delighted in Hunting, and were careful to cultivate that Exercise.

The *Persians* look'd upon Hunting to be a *Persians*. very important Business, as it was an excellent Preparation for the Art of War. They even employ'd their Arms this way, and had their Bows, Arrows, Swords, Axes, Pikes, and Shields made of Willow (*b*). The two *Cyrus's* were much delighted with Hunting; and the last of 'em had a Park fill'd with wild Beasts, at the City of *Celenes* in *Phrygia*. *Artaxerxes Longimanus* (*i*) had his Sons instructed in Hunting, by Masters of that Art. And the Kings of *Parthia* (*k*), who in Process of Time succeeded the *Persian* Kings in Power, came sometimes to hunt at *Babylon*, then a ruinous City, according to the Predictions of the Prophets, and which was of no other Use, but to be a Receptacle for wild Beasts (*l*).

The *Egyptians*, amidst all their Politeness, apply'd themselves to Hunting; and this was the most common Exercise of the Children which were educated after *Sesostris*. The Dexterity of *Ptolemy Epiphanus* in this Exercise is celebrated in History. His Ambassador told the *Acheans*, that his Master had kill'd a wild Bull by one Stroke of a Shaft (*m*), and added, that they ought to think very highly of him upon that account.

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Fish-

(*b*) See Xenophon's *Cyropædia*.

(*i*) Xenophon. *Retr.* B. 1.

(*k*) Plato in *Alcibiadem*, 1.

(*l*) See St. Jerom on *Isaiah* xiii.

(*m*) Polyb. *Legat.* Cap. 37.

HUNTING, FISHING.

Fishing was commonly practis'd in *Egypt*, for that on the Lake *Mæris* sometimes yielded the Prince a Talent of Silver each Day. Some (n) Authors, however, are of opinion, that the *Egyptians* did not eat Fish: But that Part of (o) *Herodotus*, upon which this Opinion is founded, restrains the Prohibition to the Priests only.

The *Greeks*, who attributed the Revelation of the Secrets of Agriculture to their false Gods, gave it the same Origin with that of Hunting. According to them, *Apollo* and *Diana* taught this Art to *Chiron*, the Son of *Saturn* and the Nymph *Nais*. *Chiron* had *Cephalus*, *Esculapius*, *Melanian*, *Nestor*, *Amphialus*, *Peleus*, *Telamon*, *Meleager*, *Theseus*, *Hyppolitus*, *Palamedes*, *Ulysses*, *Diomedes*, *Castor* and *Pollux*, *Machan*, *Podalirius*, *Antilochus*, and *Achilles*. *Cephalus*, *Amphiarus*, *Castor* and *Pollux*, were made immortal; the others did not survive *Chiron*, who did not die until he had educated *Achilles*. After these Heroes had destroyed the wild Beasts which infested *Greece*, they next subdued the Tyrants who oppressed the Country, and made the *Grecians* superior to their Enemies.

The *Lacedemonians*, Warriors by Profession, cultivated with great Care an Art which favoured their ruling Passion. Their Trade was Hunting, and in it they exercised themselves constantly. This painful Exercise enured 'em to Toil, and gave them Strength to subdue their Neighbours, and to enlarge the Bounds of their Republic. The *Spartans* were not
born

(n) M. de Fleury.

(o) Book 2.

born for Learning; which is the reason they have left us no Treatise of Hunting. On the contrary, the *Albenians* neglected no kind of Literature; and their Philosophers did not disdain to write upon this Subject. *Xenophon*, the Disciple of *Socrates*, has finely described the Hunting of the Hare, the Stag, and the wild Boar (p). He speaks also of Dogs of Course, and of their different Kinds and Names. He describes the Snares, the Toils or Nets which the Hunters used, the Arms which they wore, and the Gins and poison'd Baits which they laid for the most savage Beasts; and all this at great length: So that we see, he has been fully conversant in those Matters. *Callisthenes*, a learned Anatomist and Botanist, has written a Treatise on Hunting, which is commonly thought worthy of *Aristotle* and *Alexander* the Historian. *Philopæmen*, who is called the last of the *Greeks*, because he was the last who supported their Liberty, frequently diverted himself with Hunting, when he was not obliged to be at the Head of an Army.

A great Wit (q), who had more Politeness than Learning, flatly denies that Hunting was practised by People of Condition among the *Romans*. Did he not know, that the Second *Scipio*, the worthy Heir of *Scipio* the Great, who took and destroyed *Carthage*, was frequently pleased with the Exercise of Hunting? The Country of *Macedon*, where the Kings took frequently this Diversion, furnished him with an Opportunity to satisfy his Inclination; and was the School where that Hero, by hunting down wild Beasts, learned to subdue the Enemies of his Country.

Hunting,

(p) See *Xenophon of Hunting*.

(q) See *Voiture's Letters*, Numb. 125.

HUNTING, FISHING.

Hunting, says *Horace* (p), is a noble Exercise : the *Romans* loved it, and thought it contributed to their Health, and even Reputation. “ Love it (says he to *Lollius*), and “ when a rich Friend leads out his Hounds “ and Horses for Hunting, go along with “ him, to have the Pleasure of eating Venison “ after it has cost you some Labour.” In another Place (q) he describes one *Gargilius*, who order’d his Huntsmen and Servants to pass through the Fields early in the Morning, and to return as it had been in Triumph before his Face, followed by a Mule laden with a Wild Boar which he came to buy. In so great Repute was Hunting in the Time of *Augustus*, that the *Romans* thought it was a Cure for Diseases, for which Reason they would at any Rate be esteem’d Hunters.

This Taste however did not encrease under the Successors of *Augustus*. *Domicius Æno-barbus* Grandfather to *Nero*, exhibited Hunting-Matches in the Circus, and in all Quarters of the City (a). Even men of Learning did not disdain this Exercise. The younger *Pliny* (b), writing to *Tacitus*, boasts much of a Hunting, where they had caught three Boars. “ You “ cannot believe, says he, how great Vivacity “ of Mind is acquired by the Exercise of the “ Body ; not to say that the Shades of Fo- “ rests, and the Solitude and profound Silence “ which is required in Hunting, is very “ productive of happy Thoughts.”

Hunting was the darling Diversion of most of the Emperors : it was the common Refreshment

(p) B. 1. Ep. 18.

(q) B. 1. Ep. 6.

(a) See *Suetonius's Life of Nero*.

(b) B. 1. Epistle 6.

ment of *Trajan* and *Antoninus Pius* ; but *Adrian*, a lively and fierce Prince, and who knew no Medium either in Virtues or Vices, loved Dogs and Horses to such a Degree, that he erected Monuments and wrote Epitaphs upon them, and founded a City in *Myfia*, which he called *Adrianotheres*, i. e. *Adrian's Chace*, because he had kill'd a Bear with his own Hand nigh that Place.

Lucius Verus, the Collegue of *Marcus Aurelius*, gave into the same Excess, and while the *Parthians* were ravaging all the *East*, he amus'd himself with Hunting on Horseback. *Alexander Severus*, *Odenatus*, who was made *Augustus* by *Galienus*, and *Zenobia* his Wife ; the Emperor *Tacitus*, and some others, had a greater share of Moderation (c). Far from neglecting the Provinces which were expos'd to the Barbarians, they inured themselves to the Toils of Hunting in order to be able to bear those of War ; and the elder *Maximin* took no other way to establish Discipline among his Legions, than by frequently exercising them in Hunting. In those Days, none but the *Greeks* had written on that Subject. *Oppian* of *Anazarba* in *Cilicia*, having followed his Father into the Island of *Malta*, or, as some say, into that of *Melita*, where *Septimius Severus* was banished, there compos'd his Poem on Hunting, in Five Books, and Dedicated it to the Emperor *Carcalla*. *Nemesianus*, who lived under the Emperors *Carus* and *Numerius*, about the Year of *Christ* 284, and more than sixty six Years after *Oppian*, was the first among the *Romans* who wrote on Hunting, part of whose Poem is still remaining.

The

(c) Lamprid in *Alexand. Trebel. Pol. Trig. Tyran. Hist.* cap. 14

HUNTING, FISHING.

The younger *Pliny* (d) places Fishing among the Pleasures of the Country. And we know that the *Romans* were great Lovers of several Kinds of Fishes, as the Sturgeon, the Turbot, the Sea-Urchin, &c (e). *Lucullus* bored through Hills, and digged Ditches from *Naples*, in order to convey Part of the Sea into his Ponds. The Golden Palace of *Nero* (f) was surrounded with Fish-Ponds. *Vitellius* made a Feast (g) to his Brother the Emperor, where there were two thousand Fishes of exquisite Kinds; and *Lampridius* tells us, that *Alexander Severus* took sometimes the Diversion of Fishing.

Fishing has such a near Connection with Hunting, that the same Authors have written on both Arts. *Oppian* wrote a Poem on Fishing, towards the second Century; and so much was the Emperor *Septimius Severus* delighted with it, that he gave the Author a Piece of Gold for every Verse of his Poem, which made his Verses be called the Golden Verses (h). *Nemesianus*, who lived some time after him, wrote upon the same Subject, but with less Elegance; for fine Learning died at last in the West with the Roman Empire.

The Gauls. Hunting was commonly practised among the *Gauls*: in the Middle of every Village they had a Sacred Tree, where the Hunters hang-ed up Part of their Spoil, which they consecrated to their Goddess *Arduina* or *Arduenna* (i). From the Time of *Julius Cæsar*, the *Germans*, and particularly the *Swiss*, who are the most war-like

(d) B. 2. Ep. 8.

(e) Hor. B. 2. Sat. 2.

(f) Suet. Life of Nero.

(g) Eutrop. B. 7.

(h) Tillem. Hist. of the Emperors.

(i) De Perrin El. Hist. of Hunting.

like People of that Country, employed (k) themselves chiefly in Hunting.

The *French*, a People originally descended from the *Germans*, having establish'd themselves in *Gaul*, perfected an Exercise which was so agreeable to the natural Bent of the Country, and which the *Romans* had not neglected. They that are acquainted with the Antiquities of the *French* Nation, know, that those great Assemblies, which our King formerly held under the Name of *Parliaments*, always ended with Hunting. Afterwards, the prime Nobility claimed the sole Privilege of Hunting in their own Lands; and the Barons, who yielded Part of this Privilege to their Vassals, made them pay a certain Rent for it annually.

When the *French* Language (which was not originally very susceptible of the Ornaments of Style) came to be fully formed in the Process of several Ages, the Writers on Hunting began to encrease apace. *Gaston Phæbus* Count de *Foix*, and *Charles* the IXth, King of *France*, drew their Quills to write on that Subject. *John Franchiere*, *Guillau*, *Fardis*, *Artelouche*, and some others, wrote of Falconry. But as Stag-Hunting was always preferred to the other Kinds, they made Deer-Hunting a great Art, and apply'd to the Practice of it with great Earnestness. It is true, that the Authors who have attempted to write on this Subject have not had equal Success. *M. Fouillage* is (they say) confused and full of idle Words, nor has he gone to the bottom of his Subject. *M. Salnoue* has said every thing, but it is without Method, for he has not observed the necessary Order and Arrangement of his Subjects. *Sa-*
vary,

(k) See *Cæsar's* *Commen.* B. 4. init. and B. 6. c. 2.

vary, who came after him, has reduced that Subject to a better Order, and in his 2500 *Latin Verses* has comprehended what *Salnove* had spun out so long as to tire the most patient Reader: Lastly, the Author of *The Gifts of the Children of Latona* has improved upon the Exactness of *Savary*, and in his Poem entitul'd *Diana (1)*, or *the Laws of Stag-Hunting*, he has included all the Secrets of the Art in 500 *French Verses*. Yet the Brevity of this Work, however admirable, does not make up its whole Merit; with what Plainness, and yet Elegance, does this admirable Author explain the Age of the Stags, their Fewmets, their Foilings, their Traverses, their Lurking Holes, their Track, the Method of managing the Blood-Hound, the Disposition of the Fresh Dogs, and an hundred Things more, which seem to make a surprising Contrast with the fine Poetry! Indeed it requires a great Degree of Justness and Elevation of Genius to aggrandise a Didactic Poem by an ingenious Fiction, and lively and natural Images.

(1) It is divided into Six Cantos: Printed at Paris, 1734.

The

The ART of RIDING.

THE Art of Riding a Horse was known among the *Israelites* under *Solomon*. That Prince kept 40,000 Horses, which he had caused to be brought from *Egypt*^(m). But this Example, neglected by his Successors, who were weakened by the Divisions among the ten Tribes, was not followed by his Neighbours till long afterwards. Indeed the most ancient Epoch of Riding, among the *Chaldeans*, is no higher than the Reign of *Ezechias* King of *Juda*; at least, we have no Accounts of it in the Scripture before that Time, when we read ⁽ⁿ⁾ of the *Assyrian* Cavalry. Long after that, we read in the *Persian* Historians, that their Kings were taught the Art of Riding from the seventh to the fourteenth Year of their Age.

The *Treranes* and *Gymmerians*, a Northern People, had cultivated the Art of Riding during the Space of four or five hundred Years, and at last brought it into *Ionia* and *Lydia*, when they made their first Incurſion into those Countries, a little before the Days of *Hom*er, and 150 Years after the taking of *Troy*. About the time of *Bellerophon*, viz. thirteen or fourteen hundred Years before *Christ*, the *Thessalians* (says the ^(o) the Abbot *Gedoy*n) had acquired the Reputation of fine Horsemen, fighting on Horse-back against wild Bulls, whence they had the Sirname of *Centaurs*.

^(m) II. Chron. c. 9. v. 25.

⁽ⁿ⁾ II. Chron. c. 18. v. 23.

^(o) See the Memoirs of the Acad. of Belles Letters, vol. 3.

taurs. The *Lapithes*, a People of the same Country, were remarkable for the Art of making Horse-bits and Caparisons, and for managing of Horses. *Pelops*, says he, introduced Horse-Races into the *Olympic Games*, which, after having long been in Desuetude, were not practised again until about one hundred Years after the Re-establishment of those Games by *Iphitus*.

The Accounts we have of those fabulous Times, which preceded the *Olympiads*, and before there were any Histories, are not to be depended upon: it will therefore be a surer Method (after the Example of a learned (p) Academician) to fix the Epoch of Riding, with regard to that Part of *Greece* which is in *Europe*, to the first War of *Messina*, i. e. seven hundred and forty three Years before the Birth of *Christ*. It took its first rise in *Macedonia*, from thence it went into *Thessaly*, and from that into the Southern Parts of *Greece*: for *Thessaly* alone was sufficient to supply *Greece* with Horses, tho' they always degenerated when carried into other Countries, for want of good Pasture. The *Grecian* Cavalry never made any Figure till the time of *Agésilas* (q): but the *Athenians* were very careful to cultivate the Art of Riding, having Masters on purpose to teach Horsemanship (r).

The *Hippiatric* Art, or manner of managing Horses, was handled by many *Grecian* Writers. We have still the greatest Part
of

(p) M. Ferret, in his Enquiry into the Origin of Riding.

(q) Ibid.

(r) See Plate.

of those Authors preserved in a Collection which was Translated into *Latin* by *Ruellius*, at the Command of *Francis I.* But nothing of this Kind is equal to the two beautiful Books of *Xenophon*, which their Translators have entitled, *De re Equestri*; and, *De Magistri Equitum Officio*. In the first of these, to warn young Gentlemen against the Tricks of Jockeys, he enumerates the different *Parts* and *Shapes* of a Horse: the Hoof, the Legs, the Hams, the Counter, the Buttock, and the manner of shoeing them. Afterwards he describes a War-Horse, without omitting the Led-Horse, whom he would have to be very fiery, but tractable and sound. He also teaches a good Method of dressing Horses, of bridling them, coursing them, and making them leap a Ditch; and concludes with a Description of the Armour of a Horseman, or Gentleman of the Sword. The second Treatise is only concerning the Coursing of Horses, where by the bye he shews what kind of Horses are most proper for the Field.

Riding was very early cultivated in *Italy*, tho' *Romulus* had no more than three thousand Foot, and 300 Horse in his Army. But if we except the few Hints that *Vegetius* has left us, none of the *Romans* (as far as I know) have written any thing upon this Subject.

After the revival of Learning, *Italy* was long in Possession of the Art of Horsemanship; and it was in that Country alone where the Exercise of the Manage was to be learned to perfection. *M. Pluvinel* was the first Man who made the *French* equal to any of their Neighbours in the Art of Riding: and since his Time, People from all Nations in *Europe* come to us to be instructed. *M. Soleyssel*, who

came after him (who alone was worthy to educate the celebrated Mess. *Memon* and *De Buade*) finding that he could add nothing to the Precepts of *M. Pluvinel*, concerning the Armour of a Horse-Man, apply'd himself to the dressing of Horses. He studied the Properties of that Creature, his Perfections, his Faults, his Diseases, and the Remedies for them, together with the different Methods of Breeding, Bridling and Managing them. He constantly practised the ancient Method for a long time: but having found out, that that of the Duke of *Newcastel* was shorter and more general, he practised it during the last twenty or five and twenty Years of his Life (*s*). Great Men are exempted from low Jealousies, the Rock upon which so many Writers have split; unmindful of their own Glory, their only Aim is to instruct the Publick. What added so much to the Glory of *M. Soleyfel* was his having formed so many great Scholars. *M. Vandeuil* trod in his Steps, and *M. De la Guerinier*, a Disciple of *Vandeuil's*, has shewn us (*t*) that the fine Art which he profess has lost nothing, but rather has perhaps gained something by the solid and clear Method with which he has treated it.

(*s*) See *Perault's Lives of Illustrious Men*, vol. 2.

(*t*) In his *School of Horsemanship*.

Of the GYMNASTIC ART.

THIS Art, like most others I have mentioned, contributed very much to the Preservation of Health, the encrease of Strength, and the making of good Soldiers. The Antients took very great Care of their Bodies, which we neglect too much. Running on Foot was one of the principal Exercises among the *Israelites* (x), nor were they unacquainted with Wrestling even in the Days of the Patriarchs; this we see by *Jacob's Wrestling* with the Angel (y).

Hercules, Castor and Pollux, Ajax and Ulysses, were the first Wrestlers in *Greece*. *Theseus* by a more studied Adress surpassed them all, and he it was who first settled publick Schools, which they called by the Name of *Palestræ* and *Gymnasia*. There they who were designed for the Art of Wrestling, learned under different Masters to overthrow their Adversary by taking him by the Neck (z); to fight with Fists (a); to throw a heavy Hammer or Javelin to a great distance (b); together with the Exercise of Running. But the principal Part of their Education consisted in a very severe Regimen. Every thing was regulated according to the Rules of the strictest Temperance; their Sleep, time of Eating, and Choice of Food, which in ancient Times was

X 2

very

(x) II. Kings c. 18. v. 17.

(y) Gen. c. 32. v. 24.

(z) *Luſtus*.(a) *Pugilatio*.(b) *Discus*.

very gross and coarse : Nuts, dried Figgs, Cheese and coarse Bread. The Wrestlers by this Kind of Diet, acquired a prodigious Strength ; but, contrary to the Institution of their Art, they were neither fit for War, or any other Action that put them out of their ordinary way of living. Thus the *Gymnastic Art* served only for Ostentation. Sometimes indeed this Sobriety of theirs was succeeded by a prodigious Voracity ; *Milo the Crotonian* could hardly be satisfied with twenty pound weight of Bread, as much Meat, and fifteen Pints of Wine a Day.

In the second Epistle to the *Corinthians* (c), *St. Paul* lays before them the Example of Wrestlers, who *observe* (saith he) *an exact Temperance in all Things*. They had therefore at that time recover'd their antient Frugality.

But about the same time they began to improve much upon the Magnificence of their Academies. Spacious and stately Edifices were erected at great Expences : they were divided into three Parts, viz. a *Peristyle*, or Place encompassed with a Row of Columns in the inside ; a *Xystos*, or Place planted with Trees ; and a *Stadium*, which was a Walk of ninety Furlongs in length, confined on one Side by several Steps, which form'd a Theatre, long and bended at the two Ends (d). The *Stadium* was appointed for Agonistic Exercises ; the *Hippodrome* for Chariot and Horse-Races. This was the Name that they gave to a Piece of Ground four Furlongs in length, and one in breadth,

(c) Chap. 9. v. 25.

(d) Vitrius B. 5. c. 11.

breadth, which grew narrower on both sides at the farther End (e).

The *Romans* gave into a kind of Curiosity in this Art, which did little Honour to their Politeness. The two *Brutus's* taught them to take Pleasure in the most Barbarous of all Shews, viz. the Fighting of Gladiators. Charmed with this Novelty, the *Romans* reduced it to an Art, and improved it with all the Niceness and Delicacy they could. This Contagion from *Rome*, spread into *Greece* by the Means of *Antiochus Epiphanes* King of *Syria*; at length it was practised all over the *Roman* Empire. Neither *Marcus Aurelius* nor the other sage Pagans were able to stop its Course; that Miracle was reserved for the Christian Religion, and *Constantine* the Great at length put an End to the savage Practice. Afterwards Gymnastic Combats, which kept up the Worship of false Gods, underwent the same Fate. In *France* they were succeeded by Tournaments, and in *Spain* by Combats against Bulls. Our Ancestors however retain'd the Practice of Wrestling till towards the End of the Sixteenth Century, and to this Day in some Places we may observe Traces of Wrestling and Running (f).

(e) See M. de la Barr's Dissertat. on the Hist. of the Acad.

(f) See M. Carperon's Reflexions on the Oddness of Customs. Andreas Vales Notitia Galliarum in voce *Marcellacum*.

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ERRATA.

PAge 8, Line 32, for *be* read *the*. p. 79, l. 2. after *Discourse* read *is*. Ibid. l. 38, read *When the Spirit of Learning, which had slept so long began to awake in Italy*. p. 132, l. 17, for *Hibory* r. *History*. p. 154, l. 2, for *Resurrect on* r. *Resurrection*. p. 209, l. 11. for *which is supported by*, r. *by the Means of*. p. 214, l. 34. for *amount- ed* r. *mounted*. p. 220, l. 32, dele *was*.

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